SUMMER SESSION 1959

The University Record of the University of Florida

VOL. LIV Series 1, No. 3 March 1, 1959

Published monthly by the University of Florida, Gainesville, Florida. Entered in the post office in Gainesville, Florida, as second class matter, under Act of Congress, August 24, 1912. Office of Publication, Gainesville, Florida.

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The University Record Comprises:

The Reports of the President to the Board of Control, the Annual Catalog, the Schedules, the Bulletin of the Summer Session, and announcements of special courses of instruction.

These bulletins will be sent without charge to all persons who apply for them. The applicant should specifically state which bulletin or what information is desired. Address

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Gainesville, Florida

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SUMMER SESSION 1959

May 18, Monday	Last day for filing preliminary application for 1959 summer session.
June 11, Thursday	Placement Tests for entering students.
June 12, 13, 15, Friday, Saturday, Monday	Registration according to appointments assigned on receipt of preliminary application.
June 16, Tuesday, 7 a.m.	Classes begin. All registration fees increased $5.00 for persons completing registration on or after this date.
June 17, Wednesday, 5 p.m.	Last time for completing registration for the summer session. No one will be permitted to start registration after 3 p.m. on this date. Last time for adding courses or changing sections.
June 20, Saturday, 12 Noon	Last time for making application at the Office of the Registrar for degree to be conferred at the end of the summer session.
July 3, Friday	Last day for applying to take the foreign language examination for graduate students to be administered on July 11, 1959
July 4, Saturday	Holiday. Classes suspended.
July 6, Monday, 4 p.m.	Last time for dropping courses without receiving a grade of E.
July 11, Saturday	Foreign language examination for graduate students, 18 Anderson Hall, 10:00-12:00 a.m.
July 17, Friday	Last day for candidates for degrees to be conferred at end of the summer session to complete correspondence courses.
July 20, Monday, 4 p.m.	Last time for candidates for Master's and Doctor's degrees to be conferred at the end of the summer session to file theses with the Dean of the Graduate School.
August 4, Tuesday, 7 a.m.	Final examination period begins. First semester registration begins for students enrolled in the summer session.

August 6, Thursday, 4 p.m. ——— Grades for all candidates for degrees to be conferred at the end of the summer session are due in the Office of the Registrar.

August 7, Friday ——— Faculty meetings, at times announced by the Deans, to pass upon candidates for degrees.

August 8, Saturday, 12 Noon ——— All grades for the summer session due in the Office of the Registrar.

August 8, Saturday, 8 p.m. ——— Summer Commencement Convocation.

ADMISSIONS

PRELIMINARY APPLICATION

All persons planning to attend the 1959 Summer Session, whether or not they have previously attended the University, must file the preliminary application form to be considered. The preliminary application may be obtained by writing to Office of the Registrar. No applicant can be assured that his admission to the 1959 Summer Session will be considered unless the preliminary application has been received at the Office of the Registrar on or before Monday, May 18, 1959. Upon receipt of the preliminary application, the applicant will be notified of the additional information (if any) that must be submitted. This additional information must be in the Office of the Registrar on or before June 1, 1959.

GENERAL STATEMENT

The Admission Requirements have been arrived at after a very careful study of the experiences of thousands of students over a long period of years. In every case they are minimum requirements that have evolved from studies of student performance at the University of Florida. These studies have had as a primary objective the identification of factors that would indicate a reasonable chance for successful completion of University work.

The Board of University Examiners is the agency responsible for administering all admissions to the University and its various components.

Students who are planning to enter the University of Florida for the first time will be considered for admission as follows:

Freshmen (those who have never attended any college)

1. If the student is entering the University from high school and has not attended college, he will be considered for admission to the University College. (See Section I)

Undergraduate Transfer Students

2. If the student is tranferring to the University from another college or university and is presenting less than 64 semester hours of acceptable college credit for advanced standing, he will be considered for admission to the University College. (See Section II)

3. If the student is transferring to the University from another college or university and is presenting 64 semester hours or more of acceptable college credit as advanced standing toward a baccalaureate degree, he will be considered for admission to the Upper Division school or college of his choice providing his record indicates the completion of college work approximately equivalent to the comprehensive courses offered by the University of Florida in the areas of Social Sciences, the Physical Sciences, English, the Humanities and the Biological Sciences. (See Section III)

Graduate Students (candidates for Master's or Doctor's Degrees)

4. If the student wishes to pursue graduate studies and has been graduated from an accredited college or university, he will be considered for admission to the Graduate Division. (See Section IV)

Medical Students (See Section V)

Law Students (See Section VI)

ADMISSION TO THE UNIVERSITY COLLEGE

Section I Freshmen (Applicants who have never attended college)

A. Graduates of Florida High Schools:

1. Graduation from an accredited high school is required. No specific units are required but students expecting to apply for admission to the University are advised to emphasize in their high school programs the following subjects: English, social studies, mathematics, foreign languages and the natural sciences.

2. Minimum Standing on the Placement Tests of the Florida 12th Grade Testing Program. All applicants must take the placement tests before being admitted to the University. These are achievement tests in the fields of English, mathematics, social studies, and natural sciences. Attainments in these fields are possible without specific high school courses and are not guarranteed by the acquiring of certain high school units. Graduates of accredited Florida secondary schools who attain scores on the Florida State-Wide 12th Grade Testing Program tests which place them above the scores attained by the lowest 40% of the high school seniors of the state are academically eligible for admission. The University may re-test any applicant prior to admission to validate the scores attained in the State Program.

3. High school graduates who do not meet the above requirements may apply for special consideration. In each case the application will be considered on an individual basis, and any, or all, or any combination of the following types of evidence may be used in appraising the eligibility of the student for admission to the University: a personal interview, grades and rank in class, reference to the student's cumulative high school files, recommendation of the high school principal, and/or review of the results of tests already given or requested by the university admissions committee. After reviewing the evidence called for, the Board of University Examiners may grant or deny admission. In such cases the University will give considerable weight to results on such other tests as are recommended by the Board of Examiners.

4. Non-Florida students entering the University as first time freshmen must, in addition to meeting the requirements stated in 2, above, have graduated from an accredited high school with standing in the upper half of their graduating class. They must also present recommendations from the high school principal or school superintendent. Non-Florida applicants are urged to take the College Entrance Board Examinations, the results of which can be satisfactorily compared with the tests of the Florida Program so as to avoid the expense for coming to Gainesville to take the Florida Tests.

*Section II Transfer Students**

1. *Honorable Dismissal.* The student must be eligible to return to the institu-

tion last attended. Students who *for any reason* will not be allowed to return to the institution last attended cannot be considered for admission.

2. *Satisfactory record.* All transfer students must have made an average of C or higher on all work attempted at all institutions previously attended to be considered for admission.

3. Undergraduate transfer students shall be required to make a satisfactory score on a general ability test.

4. The University of Florida accepts on transfer only those courses completed at other institutions with grades of C or higher.

*The student who has matriculated at any college or university, regardless of the amount of time spent in attendance or credit earned, is regarded as a transfer student.

ADMISSION TO THE UPPER DIVISION

From the University College:

See elsewhere in this bulletin the various programs of the University College and the specific requirements listed under the curricula of the several collges and schools.

Section III Transfer Students

1. *Honorable dismissal from the institutions previously attended.* An applicant for admission who for any reason is not eligible to return to the institution last attended cannot be considered for admission.

2. *An average of C or better.* The average grade for all work attempted at other institutions must be C or better. An average grade of C or better is required for graduation from the University of Florida, and one who has not maintained this average before coming to the University need not apply.

3. A minimum of 64 semester hours accepted as transfer credit (only those courses completed at other institutions with grades of C or higher) not more than four of which are in Military Science or Physical Education.

4. *Specific course requirements for the professional school of the applicant's choice.* The courses listed as required for admission to the Upper Division under the various curricula or acceptable substitutes must be offered as advanced standing to qualify the student for admission to the Upper Division. An applicant lacking some of these requirements may be permitted to enroll in the Upper Division and complete them without reducing the credits required in the Upper Division for a degree. In some cases the student may be required to enroll in the University College until these requirements are met.

5. Undergraduate transfer students shall be required to make a satisfactory score on a general ability test.

Section IV—ADMISSION TO THE GRADUATE DIVISION

(See also more detailed description in the section of the *Catalog* headed Graduate Division.)

Limitations of space and staff restrict the enrollment of graduate students. The records of applicants for graduate study are reviewed by the graduate selection committees of the various colleges and schools. In general no student will be considered for graduate study in any unit of the University who is a graduate of a non-accredited institution. Unqualified admission to the Graduate School for study toward all degrees except those in the College of Education and the College of Physical Education and Health is dependent upon presentation of an undergraduate record from an accredited college or curriculum with an average grade of "B" for the junior and senior years. All applicants are required to make a satisfactory score on the Graduate Record Examination before admission to the Graduate School can be granted.

Section V—ADMISSION TO THE COLLEGE OF MEDICINE

(Candidates for the M.D. degree are accepted for admission only in the Fall of each year. See also more detailed description in the section of the *Catalog* headed College of Medicine.)

Section VI—ADMISSION TO THE COLLEGE OF LAW

1. The beginning courses in Law are not offered in the Summer Session, hence students are not admitted in June unless they have completed satisfactorily at least one semester of work in an accredited law school.

2. A student wishing to transfer from another accredited law school who, at the time of beginning his study of law, qualified for admission to this College under the stated requirements for beginning students (other than the Law School Admission Test) and who has maintained a scholastic average of C or higher on all previous law school work undertaken, may apply for admission with advanced standing. Courses completed with a grade of C or higher in other accredited law schools will be accepted for credit up to but not exceeding a total of thirty hours.

3. Applicants for admission to the College of Law must have received a 4-year baccalaureate degree from a college or university of approved standing and a minimum score of 340 on the Law School Admission Test. If the Test is retaken a minimum score of 375 is required.

   Under existing legislation veterans who present honorable discharges which show not less than ninety consecutive days of active service in the U. S. Army, Air Force, Coast Guard, Navy or Marine Corps may enter after they have completed 94 hours of college work meeting the standards of the Association of American Law Schools. A veteran who has not received a degree must have made an average of C or higher in all work undertaken prior to entrance in the College of Law and a minimum score of 340 on the Law School Admission Test. If the Test is retaken a minimum

score of 375 is required. For information on admissions to the College of Law with advanced standing see the section of the catalog headed College of Law.

Section VII
ADMISSION REQUIREMENTS FOR SPECIAL STUDENTS

Special students may be admitted to the various schools and colleges of the Upper Division only by approval of the Board of University Examiners. Each case will be considered on an individual basis. Application for admission as a special student must include: (1) records of previous educational experience (high school or college transcripts); (2) a statement as to the type of studies to be pursued; (3) a brief statement of the reason or reasons for selecting a special program other than a regular one; (4) satisfactory evidence of ability to pursue these studies—for example, a student to enroll as a special student for some technical courses and who feels qualified to do so by reason of employment or other experience should submit a brief description of this experience; (5) satisfactory scores on such ability or achievement tests as may be prescribed in individual cases by the Board of Examiners.

Section VIII
UNCLASSIFIED STUDENTS

For the summer session only, the University of Florida provides a category for those persons who may wish to take college courses and:

a. transfer back to the institution they regularly attend in the winter session;

b. meet certain specific certification requirements;

Persons from the groups defined above may enroll as unclassified students provided there is evidence that they would meet admission requirements as regular students.

It is possible, if the student later files all necessary credentials and meets all the requirements for registration as a regular student, for credit earned during one term as an unclassified student to be counted toward a degree program at the University of Florida. Under no circumstances will credit for more than one term in an unclassified status be applied toward any degree conferred by the University. Thus, persons that have been registered as unclassified in a previous summer session should complete the requirements for admission as regular students before attending subsequent summer sessions if they anticipate completing work for a degree at the University of Florida.

Students entering the University after high school graduation and prior to college attendance at any other institution are never admitted as unclassified students and must qualify for admission as regular students as described above.

ADMISSION INFORMATION FOR VETERANS

In addition to the regular requirements for admission set forth in the preceding sections and the forms incident thereto required by the University of Florida, any veteran who expects to enroll under provisions of any of the various

federal laws governing education or rehabilitation training of veterans must be sure that he has cleared the necessary details with the Veterans Administration and has obtained the necessary documents from them.

The government benefits available under Public Laws 16 and 894 (Vocational Rehabilitation Acts) for veterans who received service connected disabilities are provided for only after review of each individual case by the Veterans Administration.

Many young men and women who have had active duty in the armed forces during the period which began with the Korean conflict are eligible for educational benefits under Public Law 550. Veterans in this group are urged to begin preliminary application with the Veterans Administration well in advance of the date they expect to enter the University. Under this law the veteran receives monthly payments which cover educational expenses (fees and books) as well as subsistence. As most of the fee and book expense must be paid at the beginning of the school term it is essential that the veteran be in a position to meet these expenses as they are due which will almost always be before any remittance has been received from the government. Veterans expecting to attend college under PL 550 are urged to familiarize themselves with the requirements and restrictions relative to the benefits of this act. Officials of the Veterans Administration should be consulted on any points not clear to the student or prospective student. It is especially important that the student understand the procedures that must be followed to obtain Veterans Administration approval of original choice or any change of educational objective.

All veterans who believe they are entitled to educational benefits are urged to contact the appropriate Veterans Administration office in order that the decision may be made in their individual case. Veterans who at the time of registration do not have the necessary papers showing clear entitlement to government benefits are required to pay their own fees. If the proper clearances are subsequently presented to the Office of the Registrar, authorization for refund of fees and expenses appropriate in the individual case will be issued.

EXPENSES

General Information

All University registration and course fees must be paid in full at the time of registration as an integral part of the registration procedure. Payment of registration fees is a condition of admission to classes, registration is incomplete until all fees are paid.

It is suggested that students bring with them sufficient funds in the form of traveler's checks, money orders or currency to meet immediate needs. While the University will accept personal checks for fees if the check is drawn for the exact amount of the fees, personal checks in excess of $30.00 will not be cashed, although such checks will be accepted for deposit and collection.

Facilities are available in the Cashier's Office, Room 1, Administrative Building, for the safeguarding and handling of student funds. A student may place funds to his credit and withdraw them as often as practicable. Any University

fee or deposit may be paid from such an account. A fee of $.75 per summer session is charged for servicing such an account, regardless of the number of transactions. Each student is provided a record of transactions, on which is shown each deposit, withdrawal and balance. This record must be presented for all transactions. The maximum balance in such an account is limited to $750.00.

REGISTRATION FEES

	Three Week Term†	*Six Week Term†*	*Eight Week Term†*
Florida Students	$ 20.00	$ 35.00	$ 45.00
Non-Florida Students	55.00		145.00
Florida and Non-Florida students enrolled for thesis only (not to exceed 4 semester credit hours) (such students are not entitled to student activity or infirmary privileges)	20.00	20.00	20.00
Florida Students—Forest Ranger School	.00*	.00*	55.00
Non-Florida Students—Forest Ranger School	.00*	.00*	175.00

Fees for registration after the regular registration period are increased $5.00. There are not waivers of the increased fees for any reason.

*Not Offered.

†Important: A student cannot register for the eight weeks term and any other term concurrently.

SPECIAL FEES

Graduation Fee—Bachelor's Degree	$10.00
Graduation Fee—Master's, Specialist's, or Doctor's Degree	20.00
Applied Music Fee*	30.00
Practice Room Rental	5.00
Instrumental Rental	5.00

*Applied Music Courses are offered during the eight-week term only.

Application Fee for Comprehensive Examination. A non-refundable fee of $1.00 is payable on the day of application for a comprehensive examination in one of the basic courses of the University College program. Applications are necessary only when the student is not currently registered in the course concerned. Forms and instructions may be secured from the Registrar. Fees are payable to the University Cashier.

Graduate Record Examinations. The Aptitude Test of the Graduate Record Examination is required for admission to the Graduate School. A fee of $8.00 covers the cost of this examination. Students who take one of the Advanced

Tests of the Graduate Record Examination in combination with the Aptitude Test may pay a fee of $14.00. For further information see the Graduate School Section of the Catalog Issue.

Transcript Fee. A student is furnished a first copy of his record free (regardless of the amount of work completed). Subsequent copies are charged for at the rate of $1.00 each, except when the order is for more than one copy. There is a charge of $1.00 for the first copy and $.50 for each additional copy on the same order. University transcripts may be obtained from the Registrar's Office.

Audit Fees. Persons may be permitted to audit courses with the written consent of the instructor in charge and with the approval of the dean of the college administering the course on payment of a fee of $20.00 per course. Auditor's permits are obtained at the Office of the Registrar. Fees are paid in the Cashier's Office. No grades are recorded for Auditors. No one is permitted to audit courses without payment of the fee.

REFUND OF FEES

A refund of fees will be made under certain conditions, upon presentation to the University Cashier of an authorization issued by the Registrar's Office.

A full refund of tuition, registration and course fees will be made if the student's registration is cancelled on or before the first day in any summer session.

A full refund of tuition, registration and course fees less a fixed charge of $3.00 in a summer session will be made if the student withdraws or if his registration is cancelled by the University after the first day of classes but on or before the final day of registration as shown in the University calendar.

A refund of fifty per cent of tuition, registration, and course fee will be made if a student withdraws or if his registration is cancelled by the University after the conclusion of the registration period but on or before the day which marks the end of the first week of classes.

Deductions from refunds will be made for unpaid accounts due the University.

PAST DUE STUDENT ACCOUNTS

All student accounts are due and payable at the office of the University Cashier at the time such charges are incurred.

A student who owes any money to the University of Florida, other than a non-delinquent loan account, shall not be permitted to re-register, to receive credit for work completed, or to receive a transcript of grades until satisfactory arrangements for the liquidation of his indebtedness have been made with the University Cashier.

DEPOSITS

Housing Reservation. Students wishing to apply for space in University housing facilities must forward to the Director of Housing a reservation deposit of $10.00 at the time such application is made.

STUDENT LIFE—SERVICES, FACILITIES, ACTIVITIES, REGULATIONS

OFFICE OF THE DEAN OF STUDENT PERSONNEL

The Dean of Student Personnel coordinates the counseling and service activities which are available to aid the student in solving personal and educational problems and to help him in selecting a balanced program of social and recreational activities.

OFFICE OF THE DEAN OF MEN

The Dean of Men, as a counselor to men students, is interested in the total life of the student, including his academic, financial, social, and recreational activities. In cooperation with the Dean of Women, his office serves as a clearing house for all non-classroom activities. The Dean of Men serves as an adviser to student self-government so that these activities may provide training in citizenship and leadership. He cooperates with the Director of Housing in providing counseling for men who live in University housing facilities.

OFFICE OF THE DEAN OF WOMEN

The Dean of Women has broad responsibilities for the welfare of women students. She serves as a counselor to students on a variety of problems and interests including personal, academic, financial and social.

In cooperation with the Dean of Men and the Adviser to Student Organizations, she serves as an adviser to student government and other student organizations.

The Dean of Women in cooperation with the Director of Housing, acts in an administrative, supervisory, and counseling capacity with relation to the University residence halls and women's fraternity houses.

OFFICE OF THE DIRECTOR OF HOUSING

The Director of Housing, in cooperation with the Deans of Men and Women, administers, supervises, and coordinates all programs and operations in the Residence Halls, the Apartment Villages, and an Off-Campus office. See section on "Housing" for details.

OFFICE OF THE ADVISER TO FOREIGN STUDENTS

The Adviser to Foreign Students is the coordinator of arrangements for all alien students at the University. His office cooperates with other University agencies in handling admissions and financial aids for students from abroad. The office is primarily responsible for the reception and orientation of new foreign students and for all of the University's relations with the U. S. Immigration Service. The Adviser to Foreign Students cooperates with other officials and agencies of the University in providing necessary counseling for foreign students

on personal, academic, financial, language or social problems. Assistance in an advisory capacity is provided for persons interested in study or travel abroad and for individuals and organizations concerned with international understanding and intercultural exchange.

ENGLISH LANGUAGE INSTITUTE FOR FOREIGN STUDENTS

The Department of Speech conducts each summer an institute which is designed to enable foreign students, for whom English is a second language, to participate successfully in college courses conducted in English and to adjust to an American-English speaking community. The Institute provides nine weeks intensive instruction in speaking, understanding, writing and reading English. The classes meet six hours daily.

Enrollment is limited and preference is given to students who plan to continue study at the University of Florida. This is a special program which does not carry University credit.

Address inquiries to the Adviser to Foreign Students.

STUDENT ORGANIZATIONS OFFICE

The student organizations office is interested in the activities of all organized student groups on the campus. It maintains complete records of these groups, including date of recognition, officers, constitution, etc. This office is also the authorization agency for social activities of all student organizations and provides information regarding regulations for such activities.

The Assistant Dean of Men is in charge of the student organizations office and should be contacted regarding the formation and recognition of new student organizations and regarding any problems which may arise concerning the operation of student organizations.

UNIVERSITY PLACEMENT SERVICE

University Placement Service is the core of the University placement system. It serves as the coordinating agency for all placement activity on campus by working in cooperation with the University departments, schools and colleges. At the present stage of development, the U.P.S. supplements the placement activities which are carried on by various colleges, and offers direct assistance to graduating students of colleges who do not have their own placement activity.

The primary objective of the placement system is to assist students in the problem of finding suitable employment following graduation. This is done by supplying students with vocational information, information concerning job opportunities, and also assisting them in the preparation of credentials for presentation to prospective employers.

Representatives from business, industry, and government who visit the campus or write this office are given every opportunity to engage qualified University of Florida graduates.

OFFICE OF STUDENT PERSONNEL RECORDS

Using various sources, the Office of Student Personnel Records collects and integrates information concerning social and scholastic activities of each student. It makes this information available to qualified counselors who aid the student in making educational, social, psychological, and vocational adjustment. The keeping of personnel records is an effort in the understanding of, and service to, the individual student as he has contact not only with the classroom, but also with all phases of his university life.

STUDENT EMPLOYMENT

Every effort is made to aid qualified students in obtaining part-time employment. Opportunities are limited; consequently the number of part-time jobs available does not approach the number of applicants seeking these jobs. Every effort is made to place students in work that utilizes their training and experience.

Each student who is employed by the University must have an honor point average of C for the semester or term immediately preceding his employment. The average rate of pay per hour is between 75 cents and $1.25. Average monthly earnings are about $50.

Student employment is directed by the Committee on Student Aid, Scholarships and Awards, with the Assistant Dean of Men administering the program. Students who desire to work on campus should apply as soon as possible after they arrive on campus. Application for work, however, may be filed at any time.

Inquiries should be addressed to:

Assistant Dean of Men

University of Florida

Gainesville, Florida

SCHOLARSHIPS AND LOAN FUNDS

For information on scholarships and loans at the University of Florida, students should refer to the Dean of Student Personnel, who is chairman of the Committee on Student Aid, Scholarships and Awards, and to the special bulletin on Scholarships, Loan Funds and Student Employment for details on the various types of aid.

HOUSING

GENERAL INFORMATION

Each student must make personal arrangement for his housing either by (1) applying to the Office of the Director of Housing for assignment to the University Housing Facilities or, (2) in the case of an upperclass man who wishes to do so, obtaining an accommodation in private housing or in his fraternity house. (See Private Rooming Houses and Fraternities and Sororities).

All inquiries concerning housing applications, deposits, or rent payments in University Housing Facilities should be addressed to the Director of Housing, University of Florida, Gainesville. Checks or money orders for room deposits or rent payments should be made payable to the University of Florida and mailed to the Office of the Business Manager, Cashier, together with the application or rent invoice. Cash should NOT be sent through the mail.

An application for married housing may be filed at any time. An application for residence hall space may be filed at any time *after application for admission to the University.* Prospective students are urged to apply as early as possible, since assignments are made during the early spring.

A deposit payment of ten dollars must accompany the application for housing. Each applicant is given advance notice of exact assignment and deadline date for rent payment, if possible. Each applicant should read carefully the terms and conditions covering housing assignments as stated on the back of the application form and on the notification of assignment.

Roommate requests are honored wherever possible, provided the individuals wishing to room together submit their applications and pay room deposits at the same date, clearly indicate on their respective applications their desire to room together, and are within similar academic classifications. A large number of selected foreign students are assigned as roommates with American students who are interested in foreign languages, trade, and international relations. It is the University's policy to encourage American and foreign students to room together, and any student interested in the program should indicate this on his application.

RESIDENCE REGULATIONS

All freshmen men (less than 28 hours of academic credit with the University of Florida Registrar) and all undergraduate women, with the exception of those whose residence is Gainesville or vicinity, are required to live in University Housing Facilities as long as space is available. Undergraduate woment students, excepting freshmen, may live in sorority houses.

HOUSING ADMINISTRATION AND SERVICES

Carefully selected and trained personnel are in charge of each area. Students with personal problems or questions concerning procedure or policy are aided by Resident Counselors, Resident Assistants, and Section Advisors.

The rates quoted are subject to change. All facilities are equipped with basic furnishings of beds, mattresses, dressers, desks, and chairs. Residents are encouraged to obtain their own drapes, pictures, bedspreads, rugs, and lamps after arrival at the University.

Linens may be rented on a weekly exchange basis; pillows, blankets, and some extra equipment may be rented on a term basis. Linen rates per week are: sheets 15¢ each: towels, 8¢ each; pillow cases, 6¢ each. Blankets, pillows, and lamps are 60¢ per Summer Session.

Heavy luggage may be sent ahead, prepaid, addressed in the student's name and showing his assigned room number. Such shipments will be held until

called for by the student. The University assumes no responsibility beyond the exercise of reasonable care for any shipment so received.

RESIDENCE HALLS FOR SINGLE STUDENTS

Mallory and Yulee Halls

These halls of modern design and of brick, concrete, and steel construction are normally reserved for undergraduate women students. Features include: office-to-room intercommunication system; post-office boxes for each room in building lobbies; large lounge for each building; study lounge on each upper floor; large recreation rooms; laundry and other self-service facilities. Double and single rooms only, with the number of single rooms limited. Community bath facilities on each floor. Hot water system thermostatically controlled for each building. Fluorescent lighting. Rates per 8-weeks Summer Session (subject to change): Single room $48.00 per student; double room $40.00 per student; double room assigned as single $60.00 per student.

Rawlings Hall

Similar in construction and facilities to those above. To be assigned to Graduate women students only for Summer Session. Rates per 8-weeks summer session (subject to change): double room $40.00 per student; double room assigned as single, $60.00 per student.

Buckman, Thomas, Sledd, and Fletcher Halls

The four halls of modern brick, concrete, and steel construction are normally reserved for men students. Each hall is divided into separate sections with accommodations for from 30 to 48 students per section. All rooms have lavoratories, and there is a community bath on each floor in each section. There are lounges, recreation rooms, and laundry facilities in the area. Room types: two-room suites for two, double rooms for two or three students, and single rooms. Summer Session rates range from $33.00 to $40.00 per student per 8-weeks Summer Session. (Murphree Hall will not be available for use by single students during the Summer Session.)

FACILITIES FOR MARRIED COUPLES AND FOR WOMEN WITH CHILDREN

Flavet Apartment Villages

These Villages, located on-campus, have been provided through the Public Housing Authority. Assignments are currently being offered only to married veteran students. Currently, there is a waiting period of about one year between the date of application and the date an assignment can be made. Flavet I contains 22 buildings of one-story, temporary construction, divided into 83 apartment units of one, two, or three bedrooms. Flavet II, similar to Flavet I in construction, contains 20 buildings divided into 76 apartment units, of one, two, or three bedrooms. Flavet III contains 54 buildings of two-story, temporary construction, divided into 448 apartment units of one or two bedrooms. All apartment ments are equipped with basic furniture requirements, but residents must furnish their own linens, rugs, kitchenware, etc. Cooking and heating are by gas,

metered to the individual apartments. Electricity consumption in excess of the basic minimum is paid on a monthly basis on meter readings. Rent rates per month (including basic electricity) are: one-bedroom apartment, $26.75; two-bedroom apartment, $29.50; three-bedroom apartment, $32.25.

Applications may be filed at any time and should be sent as soon as possible. Applications are being accepted from non-veterans for assignment at such time as all veteran applicants have been placed.

Corry and Schucht Memorial Villages

These Villages, located on-campus, contain modern two-story buildings constructed of brick, concrete, and wood, divided into 296 one, two, and three bedroom apartment units. Assignments are offered to married veteran and non-veteran students. All apartments are equipped with basic furniture requirements for the living room, dinette, kitchen, and one bedroom. Residents must furnish the extra bedrooms and their own linen, rugs, kitchenware, etc. Cooking and heating is by gas, metered to individual apartments. Electricity is paid on a monthly basis on meter readings. Water is paid at a flat rate of $1.50 per month. Rent rates per month are: one-bedroom apartment, $54.00; two-bedroom apartment, $57.00; three-bedroom apartment, $60.00.

Applications may be filed at any time and should be sent as soon as possible.

Murphree Hall, Sections J and K will be available for assignment to couples and to women with children. The accommodations consist of two room suites (study room and bedroom). All suites have lavatories, and there is a community bath with shower and toilet facilities on each floor in each section. Cooking or preparation of food is not permitted. Summer Session rates are $59.50 per suite per eight weeks term.

OFF-CAMPUS HOUSING

Private homes and privately operated rooming houses and apartments provide many accommodations for students.

Off-campus listings are maintained in the Off-campus Section but are not compiled for mailing since availability changes constantly and a mutually satisfactory rental arrangement can normally be made by the student *only* after personal inspection of facilities and conference with the householder. Students seeking off-campus housing should come to Gainesville well before the school period to confer with the Off-Campus Section about accommodations. Advance appointments for conferences may be made.

Arrangements for the September semester should be completed between the middle of June and the middle of August, for the February semester, during January, and for the Summer Session between the middle of April and the end of May.

Any freshman man student or single undergraduate woman student who wishes to live off-campus must obtain advance clearance in writing from the Housing Division. Each single, undergraduate woman student under 21 years of age, who may be authorized to live off-campus, must file with the Office of the Dean of Women a form signed by her parents or guardians giving their approval of her living at a specific address. Such blanks are available from the Housing Division as well as the Office of the Dean of Women.

COOPERATIVE LIVING ORGANIZATION

The Cooperative Living Organization, incorporated in 1940, is operated by and for students with limited means for attending college. The Organization is located one block from the University campus, and has five residence buildings with a total capacity of over seventy members. The affairs of the Organization are administered by a Board of Directors, elected annually from the membership.

Among the qualifications for membership are scholastic ability and reference of good character. Application for membership should be made to the Vice President at 117 N.W. 15th Street, Gainesville.

FRATERNITIES AND SORORITIES

Most national fraternity and sorority chapters maintain their own houses adjacent to the University campus. Freshman women are not permitted to live in sorority houses. Special regulations apply to freshman men living in their fraternity houses. University student regulations are in effect for all sorority and fraternity houses.

FLORIDA CENTER OF CLINICAL SERVICES

The services of the five clinics which operate as a coordinated unit are available to all University students without charge. Students are urged to seek assistance before their problems or difficulties become aggravated. The services of the clinics are available to the residents of the State of Florida for diagnostic purposes, therapy and counseling to the extent that off-campus subjects are needed in training programs and as personnel and facilities will permit.

PSYCHOLOGICAL CLINIC

One of the functions of this unit is to aid the student on an individual basis to plan a vocational objective consistent with his capacities, interests, and temperament. Approved test and counseling methods are used, and results are supplemented by detailed occupational information. Other services of this unit include help to students who find their work hampered by worries, adjustment difficulties, and other troublesome conditions. In addition to the above functions, the Psychological Clinic works closely with the Department of Psychology in its program for the training of clinical psychologists and counseling psychologists.

SPEECH AND HEARING CLINIC

This clinic conducts a speech and hearing examination during orientation week of all freshmen and transfer students. The personnel of this unit are available to all University students who have speech and hearing problems which are handicapping in nature. In addition to losses in hearing such impairments include: stuttering, cleft palate speech, articulatory problems, voice abnormalities and other deviations from acceptability. This clinic operates as a laboratory for those students in the Speech Department who are training as speech and hearing therapists, speech pathologists, and audiologists.

READING LABORATORY AND CLINIC

Through the use of interviews and diagnostic tests, this clinic plans a program of study and training in improving reading skills for each individual who demonstrates a need for assistance. The program is planned according to the needs of the student, the time available in the student's schedule, and the amount of training necessary for permanent improvement of reading skills. In addition to remedial functions, this unit trains teachers and graduate students in the techniques of diagnosis and remediation. The clinic also carries on a program of research in many aspects of the field of reading and aids students and faculty members engaged in allied research. This clinic is an integral part of the C-3 program.

ADAPTED EXERCISES CLINIC

This program assists those students who have physical deviations which necessitate individual consideration in developing a sports program that is within the limits of their physical capacity. Due consideration is given to the individual's interests as well as to the social and recreational needs for adult life. Programs of functional exercise are provided for those students having physical deviations that can be corrected or improved. The work is conducted under careful supervision and is based on adequate medical diagnosis and information.

MARRIAGE AND FAMILY CLINIC

The Marriage and Family Clinic deals with marital, premarital and family adjustment problems. Clients are assisted in gaining insight into problems and in weighing advantages and disadvantages of alternative adjustments. University students will find understanding and help in the solution of their marital and premarital problems.

GENERAL INFORMATION

LECTURES, PLAYS AND EXHIBITIONS

The University presents outstanding lectures as part of the general educational and cultural life of the campus. The speakers are selected with a view to offering to the University community stimulating presentations in the different areas of learning.

During the Summer Session, under the direction of the Department of Speech, full length plays, experimental one-act plays, and interpretative reading programs are presented. The University provides facilities for high grade performances under competent direction.

Exhibitions of contemporary work in the arts are brought to the campus under the sponsorship of the University Center of the Arts. Such exhibitions provide an opportunity to study examples of the best contemporary work in painting, industrial design, furniture, crafts, community planning, architecture, and the other arts.

RELIGIOUS AND SOCIAL LIFE

The leading religious denominations have attractive places of worship and students are welcome at every service. Students interested in the study of religion and in preparing themselves for religious leadership may take courses offered by the Department of Religion. Vesper services are conducted weekly on the campus lawn or in the Florida Union.

UNIVERSITY OF FLORIDA LIBRARIES SERVICES

The University Libraries, consisting of the General Library and 12 college, school and departmental libraries, contain more than 500,000 volumes and receive currently approximately 3500 serials.

The larger part of the library holdings are kept in the General Library building where four reading rooms offer seating space for 1200 readers. Located on the first floor is the University College Reading Room which has on open shelves some 8000 volumes useful to students in the first two years of college. The Humanities Reading Room and the Social Sciences Reading Room, on the second floor, are designed primarily as centers of library activity for the upperclassmen in the humanistic and the social studies. Around the walls on open shelves in each of these rooms are approximately 15,000 volumes and current issues of learned journals. On the third floor is the Science Reading Room with books and complete sets of journals in psychology, general science, mathematics, physics, geology and geography. Additional services in the General Library are the Browsing Room for recreational reading, the Map Alcove and Reading Room, music rooms, seminar rooms, and carrels and study cubicles for faculty members and graduate students.

The Library collection is particularly strong in Floridiana with research centered in the P. K. Yonge Library of Florida History, located on the first floor of the General Library building. Manuscripts and books by Florida authors are collected in the Florida Authors Room, which is the center for activity in creative writing.

Libraries for Agriculture, Architecture and Fine Arts, Biology, Chemistry-Pharmacy, Education, Engineering, Forestry, and Law are located in or near buildings housing the corresponding instructional units. The Library serving the extension activities of the University is located in the Seagle Building. The P. K. Yonge Laboratory School Library serves the Laboratory School.

STUDENT HEALTH SERVICE

Applicants for admission to the University are furnished a medical history and physical examination form by the Registrar's Office. The medical history is completed by the applicant before going to his physician for the physical examination. The physical examination must be performed and completed by a licensed Doctor of Medicine (M.D.) and mailed by the doctor directly to the Director, Student Health Department, University of Florida, Gainesville, Florida, using the business reply envelope supplied for that purpose. The medical history and physical examination must be reviewed by a University Physician before the applicant is cleared for registration in the University. The type of physical

education for which the applicant is qualified, and the physical eligibility of male students for R.O.T.C. training, is determined on the basis of this pre-entrance examination, after conference and possible further examinations of those with reported physical defects. In cases where a defect is thought to exist, the student is requested to forward a letter from the family physician giving full details of diagnosis and treatment, in order that these may be incorporated in the record for later reference if treatment should be required, and to further determine eligibility for physical education and R.O.T.C.

The Student Health Department strives to prevent students with communicable diseases from entering the University. All students enrolled at the University are given annual chest x-rays by the State Health Department, and every effort is made to detect evidence of tuberculosis of which the student may be entirely unaware. (Faculty members and employees of the University are also given annual chest x-rays.) Late registrants will be charged a special fee of $2.00 for their chest x-ray if units of the State Health Department or the Alachua County Health Department are not available. Students must have been successfully vaccinated against smallpox within the past five years. No exceptions are made to this ruling. Students who have not been vaccinated within five years are given the vaccination during registration week. The Infirmary, however, advises students to take care of this requirement before coming to the University, as the immunization limits participation in swimming and other required activities for a number of days after being applied. It is also advised that all students be immunized for typhoid fever and tetanus prior to arrival in Gainesville.

The University maintains the Student Health Department in the Infirmary building on the campus for the protection and medical care of the students in residence. The Outpatient Clinic is open during the day from 8:00 a.m. to 12:00 Midnight, to provide all students in need of medical care with consultation and treatment. Between the hours of 12:00 Midnight and 8:00 a.m., the building is locked, but students who are in need of medical care are seen by the Nursing Staff stationed on the hospital floors of the building. A call-bell at the entrance will summon a Nurse to the Clinic. A physician is on 24 hours call to care for emergencies too severe to be cared for by the Nursing Staff.

The Hospital, consisting of 65 beds, provides the students in need of hospitalization with twenty-four hour general nursing care. Patients entering the hospital are under constant observation by a University Physician. Between the hour of 9:30 p.m. and 7:30 a.m. transportation is available to students from the Residence Halls to the Infirmary for medical care. Students are urged to report to the Infirmary at the first sign of an illness. In all cases where the illness is thought to be of more than average severity, parents will be notified by collect telephone by physician in charge of the case.

The Student Health Department gives as complete a diagnostic, treatment, and public health program as possible within the limitations of its personnel and equipment. It is staffed and organized for treating the acute illnesses which commonly occur while the student is in residence at the University. Facilities at the University Infirmary include the services of a competent medical staff, a psychiatrist, x-ray and clinical laboratories, pharmacy, and a physical therapy unit.

There are no facilities for dental work or eye refractions in the Student Health Department and therefore students are urged to have defects of vision and teeth corrected before coming to the University.

Some minor surgery is performed at the University Infirmary, but no major surgery. Major surgical operations are performed only with the consent of the student and/or parent or guardian, and at their expense. Whenever an emergency is imperative, the student shall be referred to a competent surgeon and transferred to the Alachua General Hospital in Gainesville, which is fully approved for surgery by the American College of Surgeons. Students receiving severe, multiple or compound fractures will be handled in the same manner as students in need of emergency surgery.

Competent physicians and surgeons in Gainesville and at the J. Hillis Miller Health Center cooperate readily with the Student Health Department in consultations. Whenever a student is found to be in need of a consultant, the University Physician will arrange for such a consultation. Local physicians are also available for medical service to students at their places of residence at the student's expense.

Health service is available only to those students currently enrolled in the University who have paid the student health fee. In the case of married students, who are unacquainted with local physicians, the Student Health Department will be glad to recommend well qualified physicians to attend their families.

The Health Fee does not include surgery, consultation, or special duty nursing. These must be paid by the patient. Laboratory work done at the Infirmary is free of charge, but any work that has to be referred elsewhere is the responsibility of the patient. Diagnostic x-ray service is offered at a very nominal cost. All x-rays are interpreted by a qualified Radiologist. A charge of $2.20 per day is made for students admitted to the Infirmary as inpatients.

The University is not responsible for the medical care of students during vacations, but, in certain instances, it may make special arrangements for the continued care of students who were hospitalized before the vacation period.

During epidemics, the facilities of the Student Health Department may be so overtaxed that the care of all ill students at the Infirmary will be impossible. In such an emergency every effort will be made to provide for the care of students outside of the Infirmary, but the Student Health Department will not assume payment for services rendered by outside physicians or other hospitals.

ANNOUNCEMENTS

The *Orange and Blue Bulletin* is the official bulletin of the Summer Session. This mimeographed sheet, published every other day during the Summer Session and posted on all bulletin boards, carries notices of changes in schedule, meetings, and other pertinent information. Announcements made in the General Assembly; notices on the bulletin boards in Florida Union, Peabody Hall, and Anderson Hall; and news items in the *Summer Gator* serve to keep the Summer Session students informed concerning student activities.

ORGANIZATIONS

PHI KAPPA PHI

A chapter of the Honor Society of Phi Kappa Phi was established at the University in 1912. To be eligible for consideration for membership, a student must previously have earned at the University at least thirty semester hours of credit, must have been guilty of no serious breach of discipline, and must stand among the upper tenth of all candidates for degrees in his college. Eligibility for consideration for membership is assured every student within an honor point average of 3.30 or higher, but a student who comes within the quota of his college may be considered if his honor point average is not below 3.00. Graduate students meeting certain prescribed requirements are also considered for membership.

GAMMA SIGMA DELTA

A chapter of Gamma Sigma Delta, the Honor Society of Agriculture, was established at the University in 1955. The objectives of the Society are to encourage high standards of scholarship in all branches of Agricultural Science and Education and a high degree of excellence in the practice of agricultural pursuits, by the election to membership of those students in the graduating and postgraduate classes in the Agricultural College who have shown exceptional ability during their undergraduate or graduate work, and of those alumni and faculty members who have rendered signal service to the cause of agricultural development. Minimum requirements for membership for graduating Seniors are, in general, 3.0 average, at least one year's residence at time of consideration for election, and high moral character. Graduate students must have shown ability to do satisfactory work in advanced study in agriculture, and must have completed at least one semester or its equivalent in the Graduate School at the University of Florida.

KAPPA DELTA PI

The Upsilon Chapter of Kappa Delta Pi was established at the University of Florida in 1923. The purpose of the society is to recognize and promote merit in educational study and service. Both men and women are admitted to membership. Members are chosen from juniors, seniors, graduate students, faculty, and alumni. Requirements for membership are, in general, as follows: A scholastic average in the upper quintile; evidence of abiding interest in educational service; a good professional attitude; and good personal-social characteristics. During the Summer Session the chapter holds several meetings.

PHI BETA KAPPA

Phi Beta Kappa was established on the campus of the University of Florida in 1938. It is the oldest national fraternity, being founded in 1776. In conformity with the national objectives of the society, the University of Florida

chapter restricts election to the College of Arts and Sciences. Not more than 15 per cent of the senior class graduating in each semester, including the graduating class of the Summer Session is eligible for election.

In addition to conferring membership upon qualified seniors in the College of Arts and Sciences, the society seeks, by means of an Award in Recognition of Creative Achievement, to honor each year not more than one graduating senior from all the colleges on the campus, who, irrespective of his honor point average, has distinguished himself throughout his undergraduate career in such fields of activity as creative writing, dramatics, and forensics, the fine arts, or any other liberal discipline, and has revealed a decided talent, a persistent interest, and a prospect of mature achievement in later life.

PHI DELTA KAPPA

Beta Xi chapter of Phi Delta Kappa, national professional education fraternity for men, was installed at the University of Florida early in 1949. Dedicated to ideals of research, service and leadership, this organization is one of the oldest and largest professional fraternities. Men are chosen for Phi Delta Kappa on the basis of scholarship, leadership, potentiality, and qualities of personality considered as promising for the development of public education in the state and in the nation.

RECREATION

THE FLORIDA UNION

The Florida Union, the official center of student activities, is financed primarily by student activities fees. Some of the facilities and services offered by the Union include music listening rooms, a craft and hobby shop, photographic darkrooms, browsing library, game room, and lounges where students may spend leisure hours. Fifteen guest rooms are available for guests of students and University personnel. The Union also provides an embosograf poster service, information desk, Western Union service, auditorium, and meeting rooms for student activity groups. Offices for the President of the Student Body, the Executive Council, Honor Court, and all student publications are located in the Florida Union.

The Florida Union Board for student activities, composed of students interested in planning student activities, sponsors a variety of social programs for the student body. Some of the regular activities sponsored by the Union Board are bridge tournaments, dancing classes, coffee hours, movies, outings, and dances. Other special activities are sponsored by the Union Board during the year. The committees of this board are open to all interested students.

The University's Camp Wauburg operated by the Florida Union is a recreational area for the exclusive use of University personnel. This area is located nine miles south of the campus. Facilities include a large picnic area, a recreational building, a bath house, and a play ground area for volley ball, horseshoes, badminton, softball. Camp Wauberg has swimming, boating, and fishing facilities.

INTRAMURAL AND RECREATIONAL ATHLETICS

A broad recreational program of athletics will be conducted for the students and faculty by the College of Physical Education and Health during the Summer Session.

A Summer Session all-campus league will be organized with competition in softball, tennis (singles and mixed doubles), shuffleboard (singles and mixed doubles), swimming, volleyball, table tennis, and handball tournaments, appropriate awards will be made to winning teams and individuals in all sports.

A sports' clinic will be conducted prior to the tennis, volleyball, and handball tournaments. Students have the opportunity to learn skills in recreational sports through the Department of Required Physical Education. Further information may be obtained at Room 134, Florida Gymnasium.

The athletic and physical educational facilities, including the use of the swimming pool and equipment room service, will be available to all *bona fide* University students. Use of these services and facilities will also be extended to students' families, faculty, employees, and their immediate families, upon payment of a fee of $1.00 per individual. The *Summer Gator*, the *Orange and Blue Bulletin*, and the *Florida Intramural Bulletin* will carry current notices and announcements about various phases of the program.

SWIMMING POOL

The swimming pool will be open daily during the Summer Session. Dressing facilities for women are located in the Women's Gymnasium. The facilities for men are located in Florida Gymnasium.

THE DEPARTMENT OF MUSIC

The Department of Music offers opportunities during the Summer Session for those students interested in participating in bands, orchestras and choral groups.

RELIGIOUS AND SOCIAL LIFE

The leading religious denominations have attractive places of worship and students are welcome at every service. Students interested in the study of religion and in preparing themselves for religious leadership may take courses offered by the Department of Religion.

ACADEMIC REGULATIONS

STUDENT RESPONSIBILITY

Each student must assume full responsibility for registering for the proper courses and for fulfilling all requirements for his degree. Several days before registration students should confer with the deans of their respective colleges regarding choice of courses. Juniors and seniors should confer with the heads of the departments in which they expect to earn majors. Candidates for gradu-

ation must file, in the office of the Registrar, formal application for a degree and must pay the diploma fee very early in the term in which they expect to receive the degree. The official calendar shows the latest day on which this can be done.

Courses can be dropped or changed only with the approval of the dean of the college in which the student is registered and by presentation of the cards authorizing the change at the office of the Registrar.

CREDITS

The term credit as used in this bulletin in reference to courses is equal to one semester hour.

RESIDENCE REQUIREMENTS

1. The minimum residence requirement for the baccalaureate degree is two semesters, or one semester and three six-weeks summer terms, or one semester and two eight-week summer terms, or one semester and two nine-week summer terms, or five six-week summer terms, or four eight-week summer terms or four nine-week summer terms. New students offering advanced standing must meet this requirement after entrance to the University. Students who break their residence at the University by attending another institution for credit toward the degree must meet this requirement after re-entering the University

2. Students are required to complete the last thirty credit hours (except in the College of Law) applied toward the baccalaureate degree during regular residence in the respective college from which they expect to be graduated. Exception to this regulation may be made only upon written petition approved by the faculty of the college concerned, but in no case may the amount of extension work permitted exceed more than twelve of the last thirty-six hours required for a baccalaureate degree.

3. For the degree of Bachelor of Laws, a student must complete at least 96 weeks of study in residence in an accredited law school of which at least 62 must have been in residence in the College of Law, University of Florida. The last 28 credits and the last 30 weeks of study must be in residence in this College unless other arrangements are made in advance by written petition approved by the faculty of the College of Law. (In the case of a student admitted prior to September, 1953, completion of at least 90 weeks of study in residence at an accredited law school is required of which at least 56 weeks must have been in residence at this College.)

4. For residence requirements for the various graduate degrees see the Graduate School section of this bulletin.

AMOUNT OF EXTENSION WORK PERMITTED

No student will be allowed to take more than one-fourth of the credits toward a degree by correspondence study and extension class work. Extension work to apply on the last thirty hours is authorized only by special action of the faculty of the college in which a student is registered. Such authorization must be ob-

tained prior to enrollment in extension work. If authorization is given, no student is permitted to earn more than twelve of the last thirty-six hours in this manner. Under no circumstances will a student in residence be permitted to register for a correspondence course if that course is being offered in Summer Session.

MAXIMUM AND MINIMUM LOAD

The maximum load for which an undergraduate may register in an eight-week term is 9 semester hours. The maximum load in a six-week term is 6 semester hours.

The minimum load for any student is three semester hours. Original registration for less than three hours must be approved by the Dean of the college in which the student is enrolled. After registration, the student may reduce his load to less than three hours only with the approval of the Senate Committee on Student Petitions.

UNCLASSIFIED STUDENTS

1. This group will include (a) students from other colleges and universities who wish to earn credits in the Summer Session to be transferred eventually to their respective institutions, and (b) other students not candidates for degrees.

2. In the event any student who has attended a Summer Session as an unclassified student later wishes to become a candidate for a degree in one of the colleges or schools of the University, he may do so (1) by regularizing his admission to the University (present all the credentials required) and (2) by meeting the requirements (in effect at the time of his application for candidacy) for admission to the school or college he desires to enter.

3. If such a student is admitted to candidacy for a degree, credits earned while an unclassified student will be accepted insofar as they apply toward the degree requirements (in effect at the time he is admitted to candidacy) of the college or school chosen by the student. A student must have been registered as a regular student in the college or school from which he expects to receive the Bachelor's Degree for at least three six-week summer terms or two eight-week summer terms, and in the Graduate School for at least five summer terms for the Master's Degree. The residence requirement (see above) in the University will not be waived in any case.

4. Students regularly enrolled during the academic year cannot become unclassified students during the Summer Session.

5. Each student registered as an unclassified student will be given a definite statement of the policies governing the application for admission to candidacy in the various colleges and schools. This statement will make clear that credits earned while a student is registered as an unclassified student can be applied toward a degree in the college of his choice only if under regular procedure this credit will apply toward that degree.

6. The registration blanks for unclassified students will be approved by the Registrar and assistants chosen by him from the faculty.

ABSENCES OR UNSATISFACTORY WORK

Absences count from the first meeting of the class rather than from the date a student registers for a class.

A. If any student accumulates absences or fails to do class work to the extent that further enrollment in the class appears to be of little value to him or detrimental to the best interest of the class, it shall be the duty of the instructor to warn such student in writing that further absences or failure to do class work will cause him to be suspended from the course with a failing grade. Where possible this warning will be delivered personally; otherwise, it will be mailed to the student's last University address by the Registrar. Instructors shall immediately report all such warnings to the department head or course chairman. Should any absences or failure to do classwork be incurred after this warning, the student will be suspended from the class and be given a failing grade by the Registrar upon receipt of notice from the instructor showing the date of warning.

   Should this reduce the load of the student below the minimum required, he will be suspended from the University.

B. When a student is suspended from a course under the provisions of A above, his parents shall be notified in writing by the Registrar.

C. A student who has been warned for absences or unsatisfactory work in any class should not incur additional absences in that course even though he has not been absent from the class for nine scholastic days. It is the responsibility of the student to see that his work and attendance are satisfactory.

PROBATION, SUSPENSION, AND EXCLUSION FOR ACADEMIC REASONS

The University of Florida accepts the responsibility of providing sound higher education. This includes the obligation to both the public and to the student of providing good higher education in an economical and efficient manner. In order to discharge this responsibility, the University must require reasonable academic progress from its students in return for the opportunity afforded them by a tax supported state university. To continue the registration of students who have demonstrated that they do not possess the necessary ability, or preparation, or industry, or maturity to obtain a reasonable benefit from a program of University study is inconsistent with this responsibility.

Consequently, the University of Florida Senate has enacted the following University regulations covering probation, suspension, and exclusion for academic reasons. Any college of the University may enforce additional academic standards and each student is responsible for observing the regulations of his college relating to such additional standards.

It is important to note that a student may be placed on various kinds of probations for reasons other than those listed below. For example, he may be admitted to the University on a probationary basis or he may be placed on disciplinary probation by reason of conduct or, in some cases, he may be placed on probation by the Committee on Student Petitions. In cases such as the foregoing

the individual student will receive in writing a specific set of conditions which he must meet in order to remove the probation. In most cases these conditions will require loads, grades, etc., that are above the minimums set forth below. Inasmuch as such a student will have been placed on one of these specific probations only because of some previous academic difficulty or misconduct, in his particular case the specific terms of probation which are set forth for him become the necessary minimum achievement rather than the conditions set forth below.

ACADEMIC PROBATION

Lower Division Students:

1. A Lower Division student who fails to maintain a 1.0 honor point average for all work attempted in his first or second semester at the University of Florida will be placed on academic probation for his next semester.

2. A Lower Division student on academic probation (Under Article IV or XV) during his second semester will be ineligible for further registration in the University unless he maintains a 1.0 honor point average in all work attempted in that semester.

3. A Lower Division student who has attempted more than two semesters and who fails to maintain a 1.5 honor point average on all work attempted each semester thereafter will be placed on academic probation for his next semester.

4. A Lower Division student who has attempted more than two semesters and who is on academic probation (Under Article IV or XV) shall be ineligible for further registration in the University unless he maintains a 1.5 honor point average in all work attempted in that semester, or has a 1.5 cumulative honor point average in the total of all work attempted to date.

5. A Lower Division student who has attempted six semesters of work in the Lower Division shall be ineligible for further registration in the University unless he has been admitted to an Upper Division college.

A semester during which a student withdraws after the last date for dropping courses without a failing grade and any semester in which a student is suspended for non-attendance or unsatisfactory work shall be considered as a semester attempted in administering these regulations (Sections 1 through 5 above).

Upper Division Students:

6. Any Upper Division student who fails to maintain a 1.8 honor point average for all work attempted in any semester shall be placed on academic probation for his next semester.

7. An Upper Division student on academic probation (under Article IV or XV) will be ineligible for further registration in the University unless he maintains a 2.0 honor point average in all work attempted that semester or has 2.0 cumulative honor point average in the total of all work attempted while registered in his present Upper Division college.

SUSPENSION

All Undergraduate Students:

8. All Undergraduate students (all those classified other than 6) who do not receive passing grades (A, B, C, or D) in more than one-half of the hours attempted in any term or semester shall be suspended immediately from the University for one full semester; however, failure in only one course carrying five semester hours credit or less shall not cause the student to be suspended under this provision. All Undergraduate students who are dropped from a course for excessive absences or unsatisfactory work and as a result of such drop are left with a load of less than 12 semester hours will be suspended for one full semester. A student eligible to return to the University after such a suspension shall be placed on academic probation for his next semester. The terms for satisfying his probation shall be those provided above appropriate to the number of semesters attempted. A second suspension for academic reasons shall be final and the student will not be eligible for further attendance at the University.

Graduate Students:

9. Any graduate student may be denied further registration in the University or in his graduate major when his progress toward completion of his planned graduate program becomes unsatisfactory.

ADMINISTRATIVE PROVISIONS:

10. All actions taken under these regulations shall be reflected by appropriate notations on the student's record.

11. A student attending a summer session prior to his probational semester may satisfy the terms of his probation if he obtains the necessary probation honor point average as indicated above, computed by taking the grades of his last semester and summer session together.

COMPREHENSIVE EXAMINATIONS

The comprehensive course examinations (of which the student must successfully pass six or more to complete the program of the University College) are administered by the Board of University Examiners and are given in January, May, and August of each year. A student must be familiar with the work of the various courses and be able to think in the several fields in a comprehensive way in order to pass these examinations. Standings on the comprehensive examinations are issued by the Board of Examiners and are not subject to change by any other agency.

APPLICATIONS FOR COMPREHENSIVE EXAMINATIONS

University College students who are enrolled in a course at the time the examination is given need not make application for it. University College students who are not enrolled in a course at the time an examination is given and who wish to take the comprehensive examination must apply in writing to the Board of

Examiners for permission prior to the last date set for filing such applications. *Applications will not be accepted from students registered in the colleges of the Upper Division.* Before the application is accepted the applicant will be required to furnish the Board of Examiners with proof that this privilege has not been used to avoid the payment of usual University fees. Applications will be accepted only for those examinations which are administered by the Board of Examiners. The Board of Examiners is the only agency authorized to give University College students examinations by application.

THE UNIVERSITY COLLEGE

INTRODUCTORY STATEMENT

In a reorganization at the University of Florida in 1935, all freshmen and sophomores were placed in one college. The University College administers all the work of the Lower Division, which includes the pre-professional work for the Upper Division schools and colleges and a core program of basic education for all students. In 1944 the American Council on Education defined this program: "General education refers to those phases of nonspecialized and non-vocational education that should be the common denominator, so to speak, of educated persons . . . the type of education which the majority of our people must have if they are to be good citizens, parents, and workers." During his freshman and sophomore years at the University, a student's time is about evenly divided between these objectives of general education and those of pre-professional or professional preparation.

While fully accepting its responsibility toward the professional training of students who remain four years or longer and earn degrees, the University of Florida as a state institution also accepts its civic responsibility to help those who spend only one or two years at the University. These students—more than two-thirds of all enrolled—are not "failures" because they do not continue and earn degrees, and they probably deserve more from the state university than an odd assortment of only "introductory courses." Consequently at the University of Florida a group of comprehensive courses have been worked out to give some unity and meaning to a beginner's program. These comprehensive courses that make up the core program are:

1. *American Institutions* (known hereafter as C-1)
2. *The Physical Sciences* (C-2)
3. *Reading, Speaking and Writing:* Freshman English (C-3)
4. *Practical Logic:* Straight Thinking (C-41)
   Fundamental Mathematics (C-42)
5. *The Humanities* (C-5)
6. *Biological Science* (C-6)

GUIDANCE

If a freshman is still undecided about his life's work, he is not urged to guess on registration day. His program may be made up largely from the comprehensives which help him direct his thinking toward a desirable objective, together with approved electives that may further enable him to explore interests and

needs. But whether the student is decided or undecided about his life's work, these comprehensive courses provide basic preparation that every educated person should have.

Thus since the purpose of general education is to replace fragmentation, the program absorbs much of the responsibility for guidance. Every subject or course of the University College program is designed to *guide* the student. During the time that he is making tentative steps toward a profession by taking special subjects to test aptitudes, interests, and ability, he is also studying the several great areas of human understanding and achievement. The work in the University College presents materials which are directly related to life experiences and which will immediately become a part of the student's thinking to guide him to making correct *next steps*. Thus the whole program—placement tests, progress reports, vocational aptitude tests, basic vocational materials, selected material in the comprehensive courses, student conferences, adjustments for individual differences, election privileges, and comprehensive examinations—is a part of a plan designed to *guide* students.

UPPER DIVISION COOPERATION

While the necessary correlation and unification is attempted at the University College Office, throughout the University College period students consult Upper Division deans and department heads to discuss future work. During the last month of each school semester these informal conferences are supplemented by a scheduled formal conference at which each student fills out a pre-registration card for his prospective Upper Division work.

UNIVERSITY COLLEGE COUNSELORS

The University College Counselors do not assume the responsibility that every student himself must take, but they help in every way possible as he assumes a greater and greater share of responsibility in his University education. The counselors are located in the University College Office.

Every spring the University is privileged to give placement tests to all seniors in every high school of the state. Since many high schools are also trying to acquaint the student with the common body of knowledge so needed by all, their records along with the placement tests results indicate the variation that may be made in the general program.

A student who has had three or four years of preparatory school study in any one of the subject areas of the comprehensive courses, and his placement tests or progress tests indicate superior knowledge and understanding at this level may consult one of the counselors for subsequent needed program adjustment.

THE ASSOCIATE OF ARTS CERTIFICATE

The Associate of Arts Certificate is awarded in recognition of the successful completion of two years of planned work at the University of Florida. In specific detail, one must pass at least sixty-four semester hours including pre-professional work and the comprehensive courses that make up the core program.

PROGRAMS OF STUDY

NORMAL PROGRAM

Freshman Year	Hours	Sophomore Year	Hours
1.—American Institutions	8	1.—The Humanities	8
2.—The Physical Sciences	6	2.—Biological Science	6
3.—Reading, Speaking and Writing: Freshman English	8	3.—Departmental Electives	16-20
4.—Logic and Mathematics	6	Military Science; Physical Fitness	2
5.—Departmental Electives	2-6		30-34
Military Science; Physical Fitness	2		
	30-34		

At least sixty-four semester hours, which may include four hours of Military Science, are required to complete the Lower Division.

COLLEGE OF AGRICULTURE

While in the University College, students planning to enter the College of Agriculture should take the following program of study. The sequence in which courses are to be taken will depend upon the department in which a student takes his major in the upper division and will be determined by the counselors of the College of Agriculture.

BASIC CURRICULUM—FRESHMAN AND SOPHOMORE YEARS

Course	First Semester	Credits	Course	Second Semester	Credits
C-11,	American Institutions	4	C-12,	American Institutions	4
C-31,	Reading, Speaking and Writing	4	C-32,	Reading, Speaking and Writing	4
BTY. 180,	Elementary Botany	4	BLY. 181,	General Zoology	4
CY. 121,	General Chemistry	4	CY. 122,	General Chemistry	4
C-41,	Logic	3	C-42,	Fundamental Mathematics	3
C-51,	Humanities	4	C-52,	Humanities	4
Mil. Sci. & Physical Fitness[1]		4	AS. 201,	Principles of Agricultural Economics	3
Elective in Agriculture*		3-4	Approved Elective*		7-8

Total Credits—64

[1] Hour must be taken each semester.

*Elective courses must have the approval of the Dean of the College of Agriculture. The following courses have been approved as suitable electives in Agriculture: ACY. 208, AS. 306 or 308, AG. 306, AY. 221, AL. 309, BCY. 300, BTY. 211 or 280, DY. 211, EY. 203 or 307, EDF. 245, FY. 313, FT. 201, FC. 201, OH. 203 or 217, PT. 321, PY. 201, SLS. 301-302, VC. 212.

ARCHITECTURE AND FINE ARTS

The University College student who plans to earn a degree in the College of Architecture and Fine Arts elects one of the following basic programs:

A.—For the degree in Architecture—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-11-12, American Institutions	8	1.—C-51-52, The Humanities	8
2.—C-31-32, Reading, Speaking and Writing: Freshman English	8	2.—C-61-62, Biological Science	6
3.—*MS. 105-106, Basic Mathematics	8	3.—**PS. 201-202, General Physics	6
4.—AE. 111-112, Graphic Techniques I, II	4	4.—AE. 211-212, Visual Expression I, II	4
5.—AE. 121-122, The Building Arts I, II	5	5.—AE. 231-232, Elementary Architecture Design I, II	6
6.—MY. 101-102, Military Science or Elective	2	6.—AE. 241-242, Materials & Methods of Construction I, II	4
7.—PL. 101-102, Physical Fitness	0	7.—MY. 201-202, Military Science or Elective	2
	35	8.—PL. 103-104, Physical Fitness	0
			36

B.—For the degree in Landscape Architecture—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-11-12, American Institutions	8	1.—C-42, Fundamental Mathematics	3
2.—C-21, The Physical Sciences	3	2.—C-51-52, The Humanities	8
3.—C-31-32, Reading, Speaking and Writing: Freshman English	8	3.—BTY. 180-280, General Botany	8
4.—C-41, Practical Logic	3	4.—CY. 109, Elementary Chemistry	3
5.—AE. 111-112, Graphic Techniques I, II	4	5.—AE. 211, Visual Expression I	2
6.—AE. 121-122, The Building Arts I, II	5	6.—AE. 231-232, Elementary Architectural Design I, II	6
7.—MY. 101-102, Military	2	7.—AE. 241, Materials and Methods of Construction, I	2
8.—PL. 101-102, Physical Fitness	0	8.—MY. 201-202, Military	2
	33	9.—PL. 103-104, Physical Fitness	0
			34

C.—For the degree in Interior Design—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-11-12, American Institutions	8	1.—C-21-22, The Physical Sciences	6
2.—C-31-32, Reading Speaking, and Writing: Freshman English	8	2.—C-51-52, The Humanities	8
3.—C-41, Practical Logic	3	3.—C-61-62, The Biological Sciences	6
4.—C-42, Fundamental Mathematics	3	4.—AE. 211-212, Graphic Expression I, II	4
5.—AE. 111-112, Graphic Techniques I, II	4	5.—IR. 231-232, Elementary Interior Design I, II	6
6.—AE. 121-122, The Building Arts I, II	5	6.—AE. 241, Materials and Methods of Construction I	2
7.—MY. 101-102, Military	2	7.—MY. 201-202, Military	2
8.—PL. 101-102, Physical Fitness	0	8.—PL. 103-104, Physical Fitness	0
	33		34

D.—For the degree in Building Construction—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-1, American Institutions	8	1.—C-5, The Humanities	8
2.—C-3, Freshman English	8	2.—C-6, Biological Science	6
3.—*MS. 105-106, Basic Mathematics	8	3.—**PS. 201-2, General Physics	6
4.—AE. 121, The Building Arts I	2	4.—BCN. 203, Construction Planning	3
5.—BCN. 102, Construction Drawing	3	5.—BCN. 204, History of Building	3
6.—MY. 101-102, Military	2	6.—BCN. 205, Basic Studies of Materials	3
7.—PL. 101-102, Physical Education	0	7.—BCN. 206, Construction Mechanics	3
	31	8.—MY. 201-2, Military	2
		9.—PL. 103-4, Physical Education	0
			34

*Students not qualified for MS. 105-106 will take C-42 first.
**Students not qualified for PS. 201-202 will take C-22 first.

E.—For the degree in Art (Fine Arts, History of Art, Crafts, Advertising Design, Fashion Illustration, or Fashion Design and Construction—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-11-12, American Institutions	8	1.—C-41-42, Logic and Mathematics	6
2.—C-21-22, The Physical Sciences	6	2.—C-51-52, The Humanities	8
3.—C-31-32, Reading, Speaking and Writing: Freshman English	8	3.—C-61-62, Biological Science	6
4.—ART. 101-102, Beginning Design	4	4.—ART. 205, Intermediate Design	2
5.—ART. 103-104, Beginning Drawing and and Painting	4	5.—ART. 206, Intermediate Drawing and Painting	2
6.—Military Science or Elective	2	6.—ART. 207-208, Intro. to the Principles and History of Art	6
7.—Physical Fitness	0	7.—Military Science or Elective	2
	32	8.—Physical Fitness	0
			32

F.—For the degree in Art Education—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-11-12, American Institutions	8	1.—C-41-42, Logic and Mathematics	6
2.—C-21-22, The Physical Sciences	6	2.—C-51-52, The Humanities	8
3.—C-31-32, Reading, Speaking and Writing: Freshman English	8	3.—C-61-62, Biological Science	6
4.—ART. 101-102, Beginning Design	4	4.—ART. 205, Intermediate Design	2
5.—ART. 103-104, Beginning Drawing		5.—ART. 206, Intermediate Drawing and Painting	2

and Painting	4
6.—Military Science or Elective	2
7.—Physical Fitness	0
	32

6.—EDF. 225, Children & Culture	3
7.—EDF. 245, Human Growth & Development	3
8.—Military Science or Elective	2
9.—Physical Fitness	0
	32

G.—For the degree in Music Education—

Freshman Year	Hours
1.—American Institutions	8
2.—The Physical Sciences	6
3.—Reading, Speaking and Writing: Freshman English	8
4.—Logic and Mathematics	6
5.—Applied Music in Courses below 100	2
6.—Ensemble	2
7.—Military Science or Elective	2
8.—Physical Fitness	0
	34

Sophomore Year	Hours
1.—The Humanities	8
2.—Biological Science	6
3.—EDF. 225	3
4.—EDF. 245	3
5.—MSC. 101-102	6
6.—Applied Music in Courses above 100	4
7.—Ensemble	2
8.—Military Science or Elective	2
9.—Physical Fitness	0
	34

ARTS AND SCIENCES

A student who plans to earn a 4-year degree in the College of Arts and Sciences should secure credit in all of the comprehensive areas as indicated by the University College. Electives in the first two years should be taken in introductory courses in possible major fields and in foreign languages. Students who have selected a major should limit their University College electives in the major to permit taking introductory and intermediate courses in other liberal arts areas.

For further information concerning special programs of instruction and the details of degree requirements the student is referred to the regular University Catalog.

PRE-MEDICAL OR PRE-DENTAL STUDENTS

Medical schools the country over require for admission usually a minimum of three years (90 semester hours) and dental schools require a minimum of two years (60 semester hours). The subjects which most catalogs list are:

Pre-medical	Pre-dental
6 semester hours of English	6 semester hours of English
8 semester hours of Inorganic Chemistry	6 semester hours of Biology
8 semester hours of Organic Chemistry	6 semester hours of Physics
8 semester hours of Physics	8 semesters hours of Inorganic Chemistry
8 semester hours of Biology	4 semester hours of Organic Chemistry
6 semester hours of French and German	30 semester hours of Electives
40-50 semester hours of Electives	

These specific subjects may be taken as a part of a regular University College program. Catalogs of medical schools are kept at the University College Office and at the Pre-Professional Counselling Office (12-B Flint Hall).

Not all applicants who meet the minimum requirements are accepted. The ratio varies from 1 in 5 to 1 in 30. Excellent grades in the preparatory subjects are essential.

A complete statement of the requirements of the University of Florida Medical College is to be found in another part of this catalog.

BUSINESS ADMINISTRATION

To enter the College of Business Administration, students are required to complete the curriculum below or the equivalent thereof in each of the courses or areas of knowledge listed including the following:

ES. 201-202.—Basic Economics
ATG. 211-212.—Elementary Accounting
ES. 203.—Elementary Statistics
MS. 208.—Business Mathematics

Freshman Year

First semester	Hours	Second Semester	Hours
1.—American Institutions	4	1.—American Institutions	4
*2.—The Physical Sciences	3	*2.—The Physical Sciences	3
*3.—Logic or Mathematics	3	*3.—Logic or Mathematics	3
4.—Reading, Speaking and Writing: Freshman English	4	4.—Reading, Speaking and Writing: Freshman English	4
5.—Approved Electives	3	5.—Approved Electives	3
Military Science; Physical Fitness	1	Military Science; Physical Fitness	1
	15-18		15-18

Sophomore Year

1.—Accounting	3	1.—Accounting	3
2.—Economics	3	2.—Economics	3
3.—The Humanities	4	3.—The Humanities	4
4.—Biological Science	3	4.—Biological Science	3
5.—Statistics or MS 208	3-4	5.—Statistics or MS 208	3-4
Military Science; Physical Fitness	1	Military Science; Physical Fitness	1
	17-18		17-18

*A student who has had three or more years of mathematics and science in preparatory school and whose standings on the placement tests indicate superior knowledge and understanding at these levels may substitute one of the introductory basic sciences for the general Physical Science course (C-2) and Basic Mathematics for Logic and Fundamental Mathematics.

At least sixty-four semester hours, which may include four hours of Military Science, are required to complete the Lower Division.

COURSES OFFERED BY THE COLLEGE OF BUSINESS ADMINISTRATION AVAILABLE TO STUDENTS IN THE UNIVERSITY COLLEGE

The following courses offered by the College of Business Administration may be taken by students in the University College: ATG. 211-212, Elementary Accounting; ATG. 214, Federal Income Taxes for Individuals; ES. 203, Elementary Statistics; ES. 201-202, Basic Economics; ES. 208, Economic History of the United States; ES. 210, Machine Technology in American Life; ES. 246, Consumer Economics; ES. 296, Industry and Trade of Latin America; FI. 260, Fundamentals of Insurance; MGT. 101, Introduction to Business; MGT. 204, Business Ethics; MGT. 271, Principles of Management; MKG. 231, Principles of Marketing; MKG. 233, Salesmanship; RE. 291, Real Estate Fundamentals; and RE. 295, Housing and Home Ownership.

It is anticipated that some students who do not plan a four-year program will elect to take many of these courses or to arrange a program of two years or less in length in which many of these courses would be included. Also some students not headed for the College of Business Administration may wish to elect one or more of these courses.

EDUCATION

BASIC PROGRAM

University College students working toward a degree in the College of Education should pursue one of the following programs:

(Except Agricultural Education)

Freshman Year	Credits	Sophomore Year	Credits
1.—American Institutions	8	1.—The Humanities	8
2.—The Physical Sciences	6	2.—Biological Science	6
3.—Reading, Speaking and Writing: Freshman English	8	3.—Logic or Mathematics	3
4.—Logic or Mathematics	3	4.—Military Science or Electives	2
5.—Military Science or Electives	2	5.—Electives (approved)	12
6.—Electives (from list below)	6-8	6.—Physical Fitness	0
7.—Physical Fitness	0		31
	33-35		

Electives:

Art Education: EDF 245-225; ART 101, 102, 103, 104, 206; SCA 253.
Elementary Education: EDF 245-225; MSC 161 (Prerequisite: MSC 160 or pass music skills test); PHA 361; SCA 253.
Industrial Arts Education: EDF 245-225; IN 102.
Music Education: EDF 245-225; MSC 101, 102; 4 credits in ensemble, 4 credits in applied music.
Physical Education for Men: EDF 245-225; PHA 251, 291, 283, 284, 287.
Physical Education for Women: EDF 245-225; PHA 251, 291, 252, 253, 254, 255, 256, 257, 258.
Secondary Education: EDF 245-225; electives should include 9 hours of basic courses in the teaching field and an approved elective in the Human Adjustment area.

In Secondary Education and Industrial Arts Education, 3 hours in the Human Adjustment area, other than C-41, are required. These electives may be taken either in the University College or in the College of Education.

BASIC PROGRAM FOR AGRICULTURAL EDUCATION

Freshman Year	Credits	Sophomore Year	Credits
1.—American Institutions	8	1.—Practical Logic	3
2.—Reading, Speaking and Writing: Freshman English	8	2.—Fundamental Mathematics	3
3.—Biological Science	6	3.—The Humanities	8
4.—AY. 221, General Field Crops	3	4.—BTY. 101-102, General Botany	6
5.—PY. 201, Fundamentals in Poultry Production	3	5.—CY. 109-110, Elements of Chemistry	6
6.—Military Science; Physical Fitness	2	6.—DY. 211, Principles of Dairying	3
	30	7.—VC. 202, Vegetable Gardening	3
		8.—Military Science; Physical Fitness	2
			34

ENGINEERING

The program for the first and second year students expecting to earn a degree in the College of Engineering is as follows:

First Semester	Credits	Second Semester	Credits
1.—C-11, American Institutions	4	1.—C-12, American Institutions	4
*2.—C-21, The Physical Sciences	3	*2.—C-22, The Physical Sciences	3
3.—C-31, Reading, Speaking and Writing: Freshman English	4	3.—C-32, Reading, Speaking and Writing: Freshman English	4
*4.—C-42, Fundamental Mathematics	3	*4.—C-41, Practical Logic	3
5.—Military Science	1	5.—MS. 105, Basic Mathematics	4
6.—PL. 101, Physical Fitness	0	6.—Military Science	1
	15	7.—PL. 102, Physical Fitness	0
			19

Third Semester	Credits
1.—MS. 106, Basic Mathematics	4
2.—CY. 217, General Chemistry and Qualitative Analysis	4
3.—C-51, The Humanities	4
**4.—EGR. 181, Engineering Drawing	3
5.—Military Science	1
6.—PL. 103, Physical Fitness	0
	16

Fourth Semester	Credits
1.—MS. 353, Differential Calculus	4
2.—CY. 218, General Chemistry and Qualitative Analysis	4
3.—C-52, The Humanities	4
**4.—EGR. 182, Descriptive Geometry	3
5.—Military Science	1
6.—PL. 104, Physical Fitness	0
	16

A student interested in the Florida Industries Cooperative Plan should contact the engineering department of his choice or the Dean's office for specific advice before registering for the first semester.

Students whose records in the University College indicate that they are qualified to take the professional courses in Engineering will be admitted to the College of Engineering.

FORESTRY

Students planning to enter the School of Forestry should complete the respective outline of courses listed in the regular University Catalog as required for the freshman and sophomore years for the Forestry curriculum of their choice.

Those students falling below a 2.0 grade average will be considered for admittance to the School of Forestry only after they have demonstrated the ability to satisfactorily carry on the professional courses in Forestry.

COLLEGE OF HEALTH RELATED SERVICES

The College of Health Related Services offers three Bachelor of Science degrees: Medical Technology, Physical Therapy, and Occupational Therapy. Students are required to take the comprehensive courses and some preprofessional courses during the first two years. During the 1959 Summer Session there will be no courses offered in any of these specialties by the College of Health Related Services. Course offerings will be available at the Junior level in September 1959. Interested students are invited to confer with the chairman of the respective curriculum for further details in respect to these health careers.

The degree of Master of Rehabilitation Counseling is an inter-disciplinary program designed to prepare students to assist in the rehabilitation of physically, emotionally, and mentally handicapped persons. This program will be transferred from the College of Education to the College of Health Related Services on July 1, 1959.

HEALTH RELATED SERVICES

The University College student who plans to earn a degree in the College of Health Related Services elects one of the following programs:

A.—For the degree in Medical Technology—

Freshman Year	Hours
1.—C-1, American Institutions	8
2.—C-3, Reading, Speaking, and Writing	8
3.—*C-4, Logic and Mathematics	6

Sophomore Year	Hours
1.—C-5, The Humanities	8
2.—C-6, Biological Science	6
3.—BLY. 161-2, Biology Laboratory	4
4.—CY. 123, Qualitative Analysis	3

4.—CY. 121-2, General Chemistry	8
5.—Military Science or Elective	2
6.—Physical Fitness	0
	32
5.—HRS. 201, Introduction to Health Related Services	2
6.—PS. 109-110, Elements of Physics	4
7.—CY. 362, Organic Chemistry	3
8.—Military Science or Elective	2
9.—Approved Elective	2
10.—Physical Fitness	0
	34

*Those in upper percentile on Mathematics Placement Test can take MS. 325 in place of C-42 with permission of University College Advisor.

B.—For the degree in Occupational Therapy—

Freshman Year	Hours
1.—C-1, American Institutions	8
2.—C-2, The Physical Sciences	6
3.—C-3, Reading, Speaking, and Writing	8
4.—C-4, Logic and Mathematics	6
5.—ART 101-2, Beginning Design	4
6.—Physical Fitness	0
	32

Sophomore Year	Hours
1.—C-5, The Humanities	8
2.—C-6, Biological Science	6
3.—BLY. 161-2, Biology Laboratory	4
4.—HRS. 201, Introduction to Health Related Services	2
5.—PSY. 201, General Psychology	3
6.—PSY. 410, Abnormal Psychology	3
7.—Approved Electives	6
8.—Physical Fitness	0
	32

C.—For the degree in Physical Therapy—

Freshman Year	Hours
1.—C-1, American Institutions	8
2.—C-3, Reading, Speaking, and Writing	8
3.—C-4, Logic and Mathematics	6
4.—CY. 121-2, General Chemistry	8
5.—Military Science or Elective	2
6.—Physical Fitness	0
	32

Sophomore Year	Hours
1.—C-5, The Humanities	8
2.—C-6, Biological Science	6
3.—BLY. 161-2, Biology Laboratory	4
4.—PSY. 201, General Psychology	3
5.—HRS. 201, Introduction to Health Related Services	2
6.—PS. 109-110, Elements of Physics	4
7.—Military Science or Elective	2
8.—Approved Electives	5
9.—Physical Fitness	0
	34

JOURNALISM AND COMMUNICATIONS

To enter the School of Journalism and Communications students are required to have completed the comprehensive courses required in University College and these pre-professional courses: COM. 118.—Survey of Communications; COM. 201.—Writing for Mass Communications; ES. 201.—Basic Economics; and ART 101.—Beginning Design. In addition to the above pre-professional courses, the Radio-TV majors must take SCH. 200.—Voice and Diction, and COM. 212.—Radio and Television Announcing. The Journalism, Public Relations, and Advertising majors must take SCH. 201.—Effective Speaking. All candidates must have a grade average of C or better and a working knowledge of typewriting.

LAW

Applicants for admission to the College of Law must have received before admission a four-year baccalaureate degree from a college or university of ap-

*In cases where students on the basis of superior placement test grades, are allowed to omit starred courses, they will need to take an equivalent amount of more advanced work in order to be eligible for admission to the College of Engineering at the end of the second year.

**Drawing equipment required for EGR. 181, EGR. 182, and subsequent courses costs approximately thirty dollars.

proved standing and a minimum score of 340 on the Law School Admission Test except as stated in the description of the College of Law in this Catalog.

Although no particular courses are prerequisites, a student preparing for admission to the College of Law should obtain a thorough mastery of the basic comprehensive courses and should take also at least an academic year's work in each of the following general fields: Accounting, Economics, English, American History, English History and Political Science. Since concepts expressed in words are tools of the legal profession, it is essential that a student be able to read rapidly and meaningfully and to write clearly and concisely. Courses requiring the rapid assimilation and digestion of written materials and courses in expository writing therefore are recommended.

NURSING

The program for freshmen and sophomores planning to earn a degree in the College of Nursing should be:

Freshman Year	Hours
C-1, American Institutions	8
C-21, The Physical Sciences	3
C-3, Reading, Speaking and Writing	8
C-4, Logic and Mathematics	6
C-61, Biological Science	3
NSG-101, Introduction to Nursing	3
NSG-111, Introduction to Nursing Functions	3
Physical Education	0
	34

Sophomore Year	Hours
C-5, The Humanities	8
C-22, The Physical Sciences	3
FAM-213, The Child in the Home	3
BCY-300, Bacteria in Everyday Life	3
NSG-221, Nursing Skills Laboratory	4
C-62, Biological Science	3
FAM-150, Nutritive Requirements for Health	2
NSG-230, Medical & Surgical Nursing	3
NSG-231, Medical & Surgical Nursing Laboratory	5
Physical Education	0
	34

PHARMACY

In keeping with the requirements of the American Council on Pharmaceutical Education, all students expecting to earn the degree of B.S. in Pharmacy must be enrolled in one or more Pharmacy courses for a minimum of three academic years or a total of twenty-seven months. This regulation applies regardless of the number of studies completed in other fields. Upon enrolling in Pharmacy courses for the first time students must sign the register in the office of the Dean of the College of Pharmacy. Students are advised to pursue the following program:

Freshman Year and Summer Session	Credits
C-11-12, American Institutions	8
C-31-32, Freshman English	8
C-41, Practical Logic	3
C-42, Fundamental Mathematics	3
C-51, The Humanities	4
C-61, Biological Science	3
CY. 121-2, General Chemistry	8
PHY. 106, Pharmaceutical Calculations	2
Military Science; Physical Fitness	2
Total	41

Sophomore Year	Credits
C.52, The Humanities	4
C-62, Biological Science	3
PS. 201-2, General Physics	6
PS. 207-8, General Physics Laboratory	2
PGY. 221-2, Practical Pharmacognosy	6
PHY. 223-4, Galenical Pharmacy	6
CY. 123, Qualitative Analysis	3
CY. 331, Quantitative Analysis	4
Military Science; Physical Fitness	2
Total	36

Only students having an average of C or higher will be admitted to the College of Pharmacy and/or pharmacy courses in the Upper Division. In addition, all pre-pharmacy students must have grades of C or higher in each of the following courses: C-42, CY. 121, CY. 122, PGY. 221, PGY. 222, PHY. 106, PHY. 223, and PHY. 224.

PHYSICAL EDUCATION AND HEALTH

University College students expecting to earn a degree in the College of Physical Education and Health should pursue one of the following programs:

A.—For men intending to major in Physical Education—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12, American Institutions	8	C-21-22, The Physical Sciences	6
C-31-32, Reading, Speaking and Writing	8	C-51-52, The Humanities	8
C-41-42, Logic and Mathematics	6	C-61-62, Biological Science	6
PHA. 284, Team Games for Men	2	PHA. 251, Square and Social Dance	2
PHA. 287, Gymnastics for Men	2	PHA. 283, Track and Baseball	2
Approved Electives	4	EDF. 225, Children and Culture	3
Military Science; Physical Fitness	2	EDF. 245, Aspects of Human Growth and Development	3
	32	Military Science; Physical Fitness	2
			32

B.—For women intending to major in Physical Education—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12, American Institutions	8	C-21-22, The Physical Sciences	6
C-31-32, Reading, Speaking and Writing	8	C-51-52, The Humanities	8
C-41-42, Logic and Mathematics	6	C-61-62, Biological Science	6
PHA. 251, Square and Social Dance	2	PHA. 252, Modern Dance	1
PHA. 253, Team Sports for Women	2	PHA. 254, Team Sports for Women	2
PHA. 255, Individual and Dual Sports for Women	2	PHA. 256, Swimming and Diving for Women	1
PHA. 257, Gymnastics for Women	1	PHA. 258, Tennis and Golf for Women	2
Approved Electives	3	EDF. 225, Children and Culture	3
Physical Fitness	0	EDF. 245, Aspects of Human Growth and Development	3
	32	Physical Fitness	0
			32

C.—For men and women intending to major in Health Education—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12, American Institutions	8	C-51-52, The Humanities	8
C-31-32, Reading, Speaking and Writing	8	C-61-62, Biological Science	6
C-41-42, Logic and Mathematics	6	*CY. 121-122, General Chemistry	8
EDF. 245, Aspects of Human Growth and Development	3	SY. 201, Sociological Foundation of Modern Life	3
PHA. 261, Personal Hygiene	3	EDF. 225, Children and Culture	3
Approved Electives	2	SY. 244, Marriage and Family	3
Military Science or Electives	2	Military Science or Electives	1
Physical Fitness	0	Physical Fitness	0
	32		32

*Students planning to major in Health Education must take CY 121-122. Students whose high school records and placement tests indicate satisfactory preparation may substitute CY. 121-122 for C-21-22. Others should take C-21, upon satisfactory completion of which they may enter CY. 121.

D.—For men and women intending to major in Recreation—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12, American Institutions	8	C-21-22, The Physical Sciences	6
C-31-32, Reading, Speaking and Writing	8	C-51-52, The Humanities	8
C-41-42, Logic and Mathematics	6	C-61-62, Biological Science	6
PHA. 284, Team Games for Men or PHA. 253, Team Sports for Women	2	PHA. 251, Square and Social Dance	2
PHA. 255, Individual and Dual Sports for Women	2-0	SY. 201, Sociological Foundations of Modern Life	3
EDF. 245, Aspects of Human Growth and Development	3	PHA. 283, Track and Baseball or PHA. 258, Tennis and Golf for Women	2
Military Science or Electives	3-5	Military Science or Electives	5
Physical Fitness	0	Physical Fitness	0
	32		32

SCHOOLS AND COLLEGES OF THE UPPER DIVISION

COLLEGE OF AGRICULTURE

The College of Agriculture is composed of three units, namely, 1. Instruction, 2. Research (Agricultural Experiment Station), and 3. Extension (Agricultural Extension Service). The Instructional Division (The College proper) is made up of departments in the College devoted to the various phases of technical and practical agricultural work. The work of these departments is closely related, and the aim of the College is to afford students the best possible training for service in agriculture.

The departments in the College are: Agricultural Chemistry (administered jointly with the College of Arts and Sciences), Agricultural Economics, Agricultural Education (administered jointly with the College of Education), Agricultural Engineering, Agronomy, Animal Husbandry and Nutrition, Bacteriology, Botany, Dairy Science, Entomology, Food Technology and Nutrition, Fruit Crops, Ornamental Horticulture, Plant Pathology, Poultry Husbandry, Soils, Vegetable Crops, and Veterinary Science.

COLLEGE OF ARCHITECTURE AND FINE ARTS

The College of Architecture and Fine Arts offers programs of study leading to appropriate undergraduate degrees in Architecture, Building Construction, Interior Design, Landscape Architecture, Painting and Drawing, Commercial Art, Crafts, Costume Design, History of Art, and Music. Programs at the graduate level are offered in Architecture, in Art, in Building Construction, and in Community Planning.

The College offers courses to students in other colleges of the University who wish to broaden their cultural background in the arts.

1959 SUMMER SESSION

During the 1959 Summer Session the College will offer a selected group of undergraduate courses in Architecture, Art, Building Construction, and Music, as well as graduate courses in Architecture, Art, and Building Construction.

TEACHERS' CERTIFICATES

The College of Architecture and Fine Arts offers courses leading to certification in Art and Music for teaching in the elementary and secondary schools in the State of Florida. Regulations describing certification of teachers are published by the State Department of Education and it is imperative that all students who expect to be certified familiarize themselves with these regulations. Applications for certificate should be made immediately after graduation, and should be addressed to the State Superintendent of Public Instruction.

DEGREES AND CURRICULA

For detailed information on admission, undergraduate degrees, graduate degrees, and programs of study for the various curricula, see the University Catalog.

COLLEGE OF ARTS AND SCIENCES

The subject matter fields regularly offered to students in the College of Arts and Sciences and the extent of these offerings is indicated in the table below:

Subject	Elective Work	Major Dept.	MA. or MS.	Ph.D.
Anthropology	X	X	—	—
Art	X	X	Graduate work offered through College of Architecture and Fine Arts	
Astronomy	X	—	—	—
Bacteriology	X	X	Graduate work offered through College of Agriculture	
Biology	X	X	X	X
Botany	X	X	Graduate work offered through College of Agriculture	
Chemistry	X	X	X	X
Communications	X	Major and Graduate work offered in the School of Journalism and Communications		
Economics	X	X	Graduate work offered through College of Business Administration	
Education	X	Major and Graduate work offered through the College of Education.		
English	X	X	X	X
Family Life	X	X	—	—
French	X	X	X	—
Geography	X	X	X	X
Geology	X	X	X	—
German	X	X	X	—
Greek	X	X	—	—
History	X	X	X	X
Journalism	X	Major and Graduate work offered in the School of Journalism and Communications		
Latin	X	X	X	—
Library Science	X	—	—	—
Mathematics	X	X	X	X
Meteorology	X	—	—	—
Music	X	X	—	—
Philosophy	X	X	X	—
Physics	X	X	X	X
Political Science	X	X	X	X

Psychology	X	X	X	X
Religion	X	X	—	—
Russian	X	X	—	—
Sociology	X	X	X	X
Spanish	X	X	X	X
Speech	X	X	X	X
Zoology	See Biology listed above			

For information regarding details of these programs of study and degree requirements, the University catalog for 1959-60 should be consulted.

COLLEGE OF BUSINESS ADMINISTRATION

The summer session offerings of the College of Business Administration provide basic courses in the several curricula groupings, a selection of advanced courses to enable students to go ahead with a normal academic program and a selection of graduate courses.

A number of curricula leading to the degree of Bachelor of Science in Business Administration are offered. For complete information on the requirements for these curricula and for the graduate program, the University Catalog should be consulted.

COLLEGE OF EDUCATION

REQUIREMENTS FOR ADMISSION

For admission to the College of Education students will present a certificate of graduation from the University College, or equivalent, and have the approval of the Admissions Committee of the College of Education. (See General Catalog for detailed requirements.)

UNDERGRADUATE PROGRAMS

Students who are preparing to teach have the opportunity of specializing in the following teaching areas: elementary education, business education, core, English, French, Latin, mathematics, science, social studies, Spanish, vocational agriculture, industrial arts, art, music, and physical education. In addition, second teaching fields, if desired, may be chosen from the preceding areas or from among: driver education, health, journalism, library service, separate fields of science, separate fields of social studies, speech, and certain areas of education for exceptional children. (See General Catalog for curricula. For further information consult the Undergraduate Counseling Office, Norman Hall, 140.)

GRADUATE PROGRAMS

Graduate work in Education offers an opportunity for teachers to specialize in such areas as foundations of education (educational psychology, history and philosophy of education, human growth and development), elementary education, secondary education, curriculum and instruction, agricultural education,

business education, industrial arts education, educational administration, supervision, audio-visual education, guidance, junior college education, teacher education, educational research, rehabilitation counseling, and education for the exceptional child. (See General Catalog for requirements.)

NOTE: Orientation Meeting for *all* graduate students in Education, Thursday, June 18, 7:00 P.M., in Norman Auditorium. This meeting will be devoted to a discussion of policies and programs for graduate students in the College of Education.

CERTIFICATION OF TEACHERS

The curricula in the College of Education include State certification requirements. Each student should consult his counselor to plan a sequence of courses to meet requirements for his degree and for certification.

For further information concerning the certification of teachers, write to the State Department of Education, Tallahassee, Florida, requesting *State Board Regulations Relating to Florida Requirements for Teacher Education and Certification*, Revised September 11, 1956.

EDUCATIONAL PLACEMENT OFFICE

The Educational Placement Office serves both former students of the University and public school officials, without charge. The Office keeps up-to-date records on registrants for positions and a current list of educational administration and teaching vacancies. Persons who wish this service should communicate with the Educational Placement Office, Norman 140.

THE P. K. YONGE LABORATORY SCHOOL

The summer term of the Laboratory School will extend from June 16 through July 24. Children of Summer Session students and all others are eligible for enrollment. Classes from the kindergarten through the sixth grade will be held. High school units in Spanish, algebra, plane geometry, American literature, and homemaking may be earned. Fees of $2.00 for University registration and a nominal fee for expendable materials will be charged. An additional fee is requested for those who register for the swimming program.

Parents will register pupils Monday, June 15, 3:00 to 5:00 p.m. in the P. K. Yonge administration building.

Application for admission should be made at the administrative office of the P. K. Yonge School as soon as possible, since the number who may be admitted is limited. Information regarding transcripts and transfer of credit for high school students is provided upon application.

EDUCATION CLASS IN EXCEPTIONAL CHILD EDUCATION

Through the cooperation of the Alachua County public schools and the P. K. Yonge Laboratory School, a demonstration class is provided for teachers interested in observing work with slow learning children. Observations may be scheduled in Room 120, Norman Hall.

COLLEGE OF ENGINEERING

UNDERGRADUATE PROGRAMS

Students who contemplate registration in the College of Engineering and those who are already registered in this college should confer about their schedules with the department heads and the dean as soon as possible.

The College of Engineering is offering several courses during the Summer Session in various departments so that students may graduate in a minimum time. Many other courses included in the engineering curricula, such as mathematics and physics, are also available. During the summer months the engineering student may also take subjects to meet elective requirements.

A student in the College of Engineering desiring to elect the Nuclear Option must confer with his department head before arranging his registration.

Students entering the University for the first time may find it to their advantage to enroll in mathematics and one of the following: Freshman English, American Institutions or General Chemistry. Students who have conpleted one year at the University may take courses in calculus and physics. Statics, dynamics, or strength of materials is suggested for those students who have com pleted calculus and physics. Elective subjects in mathematics, physics and the humanities are recommended to all students.

GRADUATE PROGRAMS

The graduate programs offered by the College of Engineering are continued during the summer in order to allow students already enrolled to complete their graduate work in a minimum length of time.

FORESTRY

Courses in Forestry are offered during the Summer Session. The required Summer Camp should be taken between the second and third year's work provided the necessary prerequisites have been completed. Students who contemplate registration in the School of Forestry should consult the University Catalog for courses which are prerequisites or are required in the Forestry curriculum.

SCHOOL OF JOURNALISM AND COMMUNICATIONS

A UNIT OF THE COLLEGE OF ARTS AND SCIENCES

The curricula in the School of Journalism and Communications lead to the degree Bachelor of Science in Journalism or Bachelor of Science in Communications.

The programs provide students with a broad background in liberal arts and sciences—literature, economics, history, political science, sociology, psychology—which are vital aspects of contemporary life and essential to those entering professional careers in printed media or audio-visual media of communications.

The general plan of education in this School is arranged so that the student spends about three-fourths of his time on general background courses. The remaining fourth involves the acquisition and practice of professional techniques in relation to this background knowledge.

Students entering the School of Journalism must choose one of the programs of study.

Those majoring in the Editorial and Public Relations fields will take the Journalism program and earn the BSJ degree. Two degrees are offered in the Advertising program: those interested in printed media will earn the BSJ degree, and those specializing in audio-visual media will earn the BSCOM degree. Students interested in Radio-TV will register for the Communications program and earn the BSCOM degree.

COLLEGE OF LAW

1. The beginning courses in Law are not offered in the Summer Session hence students are not admitted in June unless they have completed satisfactorily at least one semester of work in an accredited law school.

2. A student wishing to transfer from another accredited law school who, at the time of beginning his study of law, qualified for admission to this College under the stated requirements for beginning students (other than the Law School Admission Test) and who has maintained a scholastic average of C or higher on all previous law school work undertaken, may apply for admission with advanced standing. Courses completed with a grade of C or higher in other accredited law schools will be acceptable for credit up to but not exceeding a total of thirty hours.

3. Applicants for admission must have received before admission a 4-year baccalaureate degree from an accredited college or university, except in the case of veterans who present honorable discharges which show not less than ninety consecutive days of active service in the U.S. Army, Air Force, Coast Guard, Navy or Marine Corps. Such veterans will be admitted after they have completed ninety-four hours of satisfactory work in an accredited college or university if they have maintained a scholastic average of C or higher on all work undertaken.

COLLEGE OF NURSING

The College of Nursing has a four-year basic program leading to the degree Bachelor of Science in Nursing. Students in this program are required to take all of the comprehensive courses during their first two years along with beginning courses in nursing. The junior and senior years will consist largely of nursing courses, plus some recommended electives in the junior year. Graduate nurses who are interested in obtaining the B.S.N. will take the same general education courses as basic students as well as advanced clinical courses. Further details about the program may be obtained from the College of Nursing.

During the 1959 Summer Session there will be no courses offered by the College of Nursing.

COLLEGE OF PHARMACY

The Summer Session offerings of the College of Pharmacy, a unit in the J. Hillis Miller Health Center, provide three courses in the Lower Division and

several courses in the Upper Division. Graduate studies will be given guidance in research leading to the M.S. and Ph.D. degrees.

For complete description of the courses and requirements for admission and graduation the student should consult the University Catalog.

COLLEGE OF PHYSICAL EDUCATION AND HEALTH

GENERAL STATEMENT

The College of Physical Education and Health offers programs of instruction and services under five departments, namely, Health Service, Intramural Athletics and Recreation, Required Physical Education for Men, Required Physical Education for Women, and The Professional Curriculum.

THE PROFESSIONAL CURRICULUM

ADMISSION REQUIREMENTS

For admission to the College of Physical Education and Health students must present a certificate of graduation from the University College, or the equivalent, and have the approval of the Admissions Committee of the College of Physical Education and Health. (Consult the University Catalog for detailed requirements.)

UNDERGRADUATE DEGREES

The College of Physical Education and Health offers four undergraduate degrees: The Bachelor of Science in Physical Education, The Bachelor of Science in Health Education, The Bachelor of Science in Recreation, and The Bachelor of Science in Physical Therapy. For complete information concerning the several curricula and the requirements for these degrees, the University Catalog should be consulted.

GRADUATE DEGREE

Courses are offered by this College in the Graduate School leading to the degree of Master of Physical Education and Health with a major in physical education. Admission and degree requirements for graduates of accredited institutions are described under the Graduate Division section of this Catalog.

THE GRADUATE DIVISION

THE GRADUATE SCHOOL

ADMINISTRATION

The Graduate School consists of the Dean, the Graduate Council, and the Graduate Faculty. It is responsible for the establishment and enforcement of minimum general standards of graduate work in the University and for the coordination of the graduate programs of the various colleges and divisions of the University. The responsibility for the detailed operation of graduate programs is vested in the individual colleges and divisions.

ADMISSION

Application for admission to the Graduate School must be made to the Director of Admissions on forms supplied by his office and at times stipulated in the University Calendar. Applications are referred by the Director to the graduate selection committee of the various colleges and divisions for approval or disapproval. No transcript will be accepted as official unless it is received directly from the registrar of the institution in which the work was done. Official supplementary transcripts are required, as soon as they are available, for any work completed after making application.

In general, no student who is a graduate of a non-accredited institution will be considered for graduate study in any unit of the University.

Members of the faculty of the University of Florida with rank of assistant professor or above (or equivalent), excepting County Agents in the Agricultural Extension Services, may not receive a graduate degree from this institution. They may, however, register for work in the Graduate School and apply the credit earned to graduate degrees to be conferred by other institutions.

Grade Standards.—Except as noted below, unqualified admission to the Graduate School is dependent upon presentation of an undergraduate record from an accredited college or curriculum with an average grade of "B" from the junior and senior years. In some units of the Graduate School and on the more advanced levels of graduate study, an undergraduate average considerably above "B" may be required. College selection committees take into account not only the general grade average but the distribution of work and the quality and extent of preparation for the program which the student proposes to undertake.

The minimum undergraduate grade average acceptable for admission to programs leading to the degrees of Master of Arts in Education, Master of Education, and Master of Physical Education and Health is 2.5, calculated on a basis of 4.0 as the highest possible average and covering the last two years of undergraduate work (at least 60 semester hours).

In the College of Agriculture, admission to graduate study is normally limited to those students who have maintained at least a 2.5 honor-point average in their upper-division work and 3.0 in their major subject. For students with an undergraduate major in general agriculture, the minimum upper-division average is 2.75. In exceptional cases, where a candidate has demonstrated in some other way his fitness to do graduate work, as, for instance, outstanding achievement since earning the bachelor's degree, he may be considered for admission.

Graduate Record Examination.—A satisfactory average score on the Graduate Record Examination is required for admission. Each applicant for admission must submit scores on the aptitude test of the GRE, but either at the request of the department concerned or on his own volition, the applicant may submit in addition the score on one or more advanced subject-matter tests of the GRE. The scores on all tests taken will be weighed in regard to admission.

The Graduate Record Examination is given four times a year—in November, January, May and July at a great many locations in the United States including Gainesville, Florida. To determine exact dates and the most convenient location, the student should write to Educational Testing Service, Princeton, New Jersey. Applications are required several weeks ahead of the examination and scores are received about a month after the examination. Hence it is necessary to apply

for the GRE in early October if admission is desired in February, in early April for admission to the summer session, and in early June for admission in September. Undergraduates are advised to take the Graduate Record Examination in January or May if admission to the Graduate School is desired for the following September.

Miller Analogies Test.—If a student applies for admission too late to take the Graduate Record Examination before admission, he may apply for a postponement and submit the results of the Miller Analogies Test as a basis for determining whether postponement should be granted. The Miller Analogies Test is given at about 250 colleges and universities and may be taken at a cost of two dollars at the University of Florida, Board of University Examiners, Room 405 Seagle Building, throughout the calendar year at 3:00 p.m. on Monday, Wednesday, and Friday. During the week prior to the first day of classes for the summer session the test will also be offered at 10:00 a.m. on Monday and 3:00 p.m. on Tuesday and Thursday. Prior to reporting for the test, the fee of two dollars should be paid to the University Cashier, 2 Administration Building, and the receipt presented at the time of testing. For persons unable to abide by this schedule, special appointments can be made by contacting the Board of Examiners. It should be noted that the Miller Analogies Test is not a substitute for the Graduate Record Examination and that a postponed Graduate Record Examination must be taken with satisfactory results before a second registration will be permitted.

Foreign Students.—Students educated in foreign countries who apply for admission while residing outside the United States may be given a postponement and permitted to take the GRE during the first semester of attendance at the University of Florida. Registration for a second semester will depend upon completion of the examination. All foreign students whose native language is not English will be required to take an examination during their first semester at the University to test their command of the English language. A student whose command of English is considered inadequate will be required to take one or more special courses in English for foreign students. These courses do not carry graduate credit.

Trial Program.—The Graduate School approves two types of trial programs under fifth-year undergraduate registration for applicants whose admission or rejection for graduate study is in doubt. These programs are arranged by the major department when the student has been referred to it for this purpose by the Registrar. Trial programs shall be strictly reserved for genuinely problematical or borderline cases.

Type I (Partly Transferable): a program of about 15 semester hours consisting of advanced undergraduate courses and no more than 6 hours of graduate courses. Upon completion of the program with an average grade of "B" or better, up to 12 hours may be transferred to the student's graduate record, provided that this transfer is approved by his major department and college and that all other requirements for admission to the Graduate School have been met.

Programs of Type I are used where a student's previous grade record or Graduate Record Examination scores are on the borderline of acceptability.

Type II (Non-Transferable): a program of 15 or more hours of undergraduate work, none of which may be transferred to the student's graduate record.

Programs of Type II are used (a) to validate undergraduate records from

non-accredited and unevaluated colleges and in cases where the quantity or quality of the student's preparation cannot be determined with sufficient certainty for purposes of judging admission; (b) to repair extensive deficiencies in undergraduate programs which do not meet the prerequisites for graduate study laid down by the student's proposed major department (minor deficiencies of less than 12 hours and field transfer requirements covered by the Catalog may be handled on a non-credit basis as part of the graduate program for students who meet admission standards).

If the trial program (of either type) is completed with an average grade of "B" or better and other admission requirements have been met, the student will upon recommendation of his major department and college be given unqualified admission to the Graduate School. To secure this change of status, the student should apply through his department head and college dean to the Registrar.

All trial programs must be formally approved by the major department and college and filed with the Registrar and the Graduate School in order that there may be no question in either of the latter offices concerning the termination of the program or of the course to be used in calculating the grade average. Neither type of trial program may be continued beyond the prearranged termination.

Undergraduate Registration for Graduate Credit.—An undergraduate student at the University of Florida who has less than one semester of course work to complete for the bachelor's degree may request, in writing, through the dean of his college, approval by the Dean of the Graduate School of course registration eligible for graduate credit. Such approval can be given only to students who have maintained a "B" average in the upper division and whose total proposed program does not exceed 15 semester hours in a single regular semester or 6 hours in a summer term. Commonly, courses to be approved should be of full graduate caliber; approval of an advanced undergraduate course will be restricted to one not normally a part of the undergraduate program prerequisite to the graduate studies to be undertaken. For application to a specific advanced degree the course work taken must be earned with a grade of "A" or "B" with all course work for the semester at "B" average, and be recommended for transfer to the student's graduate record by his supervisory committee after he has been admitted to the Graduate School. Courses beyond the requirement of the bachelor's degree which are taken without such approval are not eligible for transfer as graduate credit. Foundation work required for a change of major must be taken without graduate credit.

Consultation with College and Department.—Before his first registration, the student should consult the college and department in which he will do his work concerning course requirements, deficiencies, if any, the planning of a program, special regulations, etc. All registrations require the signature of the dean of the college in which the degree is to be awarded or of his representative.

GENERAL REGULATIONS AND INSTRUCTIONS

Student Responsibility.—It is the responsibility of the student to inform himself concerning, and to carry out, all regulations and procedures required by the course he is pursuing. In no case will a rule be waived or an exception granted

because a student pleads ignorance of the rule or asserts that he was not informed of it by his adviser or other authority.

Loads.—The maximum *full-time registration* in a single regular semester is 15 semester hours; the minimum is 12 semester hours. Part-time employment of any kind reduces the maximum study load permitted. One-third time graduate assistants with departmental duties of 15 hours per week may register for a maximum of 12 semester hours. One-half time graduate assistants with departmental duties of 20 hours per week may register for a maximum of 10 semester hours. Full-time employees of the University may register for one graduate course of no more than 4 semester hours, or for two courses totaling no more than 6 semester hours if one of the two courses is a thesis course. Full-time public school personnel are normally registered for a single course.

During the *summer session,* full-time registration for a candidate for a thesis degree is 6 to 8 semester hours; full-time registration for a student in a non-thesis master's program or an Ed.S. program is 9 semester hours. A graduate assistant may not exceed 6 semester hours, and a full-time employee is limited to one course or 3 semester hours. These regulations apply to the eight-week summer term.

Holders of fellowships and assistantships are required to register for graduate study programs commensurate with the study time permitted by their awards and in no case less than 6 semester hours. Students who are applying for veterans' assistance or campus housing or who must report to a Selective Service Board should see to it that their registration meets the requirements of the agency with which they are dealing.

Courses and Credits.—(1) Courses numbered 500-599 are for fifth-year or other advanced undergraduate programs. Regulations as to the use of these courses in graduate programs, grading, minimum class size will be the same as for courses in the 400 category. (2) Courses numbered 600 and above are limited to graduate students. (3) Courses numbered 700 and above are graduate courses primarily for advanced graduate students.

Undergraduate courses numbered 300 and above are acceptable for minor credit when taken as a part of an approved graduate program. Courses bearing numbers below 600 may not be used for graduate major credit unless they have been approved for this purpose by the Graduate Council. In any case, at least fifty per cent of the minimum course work for any master's degree must be in courses numbered 600 or above.

A complete list of approved graduate courses appears in the section of this Catalog entitled Departmental Courses. Departments reserve the right to decide which of these graduate courses will be given in any semester or summer session. The published Schedule of Courses does not always include all graduate courses offered; the departments, therefore, should be consulted concerning available courses.

Grades.—Passing grades for graduate students in courses numbered below 600 are "A" and "B." Passing grades in courses numbered 600 and above are "A," "B," and "C"; however, "C" grades in courses numbered 600 and above count toward a graduate degree only if an equal number of credit hours in courses numbered 600 and above are earned with a grade of "A."

Admission to candidacy for a graduate degree and the award of such degree

depends (among other requirements) upon maintenance of an average grade of "B" for all work attempted in the major and minor fields. Any grade of "I" (incomplete) in the fields of the major and minor (or minors) must be removed by completing all required work, unless an honor-point average of 3.0 is maintained, including the hours of incomplete courses. Grades in courses numbered 699 and 799 are not considered in calculating these averages.

Change of Major.—Graduate students already admitted for work in one department who wish to transfer to another department must apply for transfer through the office of the dean of their college and must have their credentials approved by the graduate selection committee having jurisdiction in the new department. The Dean of the Graduate School and the Registrar must be notified in writing of the change in the major field. The student will be required to make up, without graduate credit, any undergraduate deficiencies in the new area.

Correspondence and Extension Work.—No courses may be taken for graduate credit by correspondence, and, except in programs for the Master of Education, Master of Arts in Education, and Specialist in Education, no extension courses, field laboratory courses, or workshops may be used for graduate credit. For regulations governing the use of courses of these kinds in the degree programs named, see below, pages 55 and 56. Extension work taken at another institution (except Florida State University) may not be transferred to the University of Florida for graduate credit of any kind.

Fees.—The fees which graduate students must pay are listed in the section of the Catalog entitled *Expenses.* (See Table of Contents.)

Procedures for Final Semester.—At this stage it is more than usually important for the student to inform himself concerning deadline dates as set forth in the University Calendar and in the announcements issued by the Dean of the Graduate School, and the officials of his college, school, or department.

Early in the last semester the student should make formal application to the Registrar for his degree. When his thesis is ready to be put in final form he should get instructions from the office of the Dean of the Graduate School. He must arrange through the University Bookstore for proper academic costume to be worn at Commencement.

Normally, students in the Graduate School must be registered in the University at the time they receive a degree. If, however, a student has completed all requirements for his degree, including courses, residence, thesis or dissertation, and all examinations, at the time of registration for the semester in which his degree is to be awarded, the Graduate Council will consider a petition to waive this regulation. *In brief, a student must be registered for the semester in which his final examination is given.*

Other Dates.—The student must observe the regulations and dates for satisfying the *language requirements* and for applying for *admission to candidacy* for the degree sought.

DEGREES OFFERED

Non-Thesis Degrees

Master of Agriculture, with major in any field in Agriculture
Master of Business Administration, with major in any field in Business Administration

Master of Education, with major in any field in Education, including Business Education, and Industrial Arts Education
Master of Physical Education and Health, with major in Physical Education
Master of Rehabilitation Counseling
Master of Arts in Teaching, with major in any field in the College of Arts and Sciences
Master of Science in Teaching, with major in any field in the College of Arts and Sciences
Specialist in Education

Thesis Degrees

Master of Science in Agriculture, with major in one of the following:

- Agricultural Economics
- Agricultural Education
- Agricultural Engineering
- Agronomy
- Animal Husbandry
- Bacteriology
- Botany
- Dairy Science
- Entomology
- Food Technology and Nutrition
- Fruit Crops
- Ornamental Horticulture
- Plant Pathology
- Poultry Husbandry
- Soils
- Vegetable Crops

Master of Science in Building Construction
Master of Science in Community Planning
Master of Science in Engineering, with major in one of the following:

- Aeronautical Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Engineering Mechanics
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering

Master of Science in Forestry
Master of Science in Pharmacy, with major in one of the following:

- Pharmaceutical Chemistry
- Pharmacognosy
- Pharmacology
- Pharmacy

Master of Science, with major in one of the following:

- Bacteriology
- Biology (Zoology)
- Botany
- Chemistry
- Entomology
- Geography
- Geology
- Mathematics
- Physics
- Plant Pathology
- Psychology

Master of Fine Arts
Master of Arts in Architecture, with major in one of the following:

- Architectural Design
- Building Construction

Master of Arts in Education, with major in one of the following:

- Agricultural Education
- Business Education
- Educational Administration
- Elementary Education
- Foundations of Education
- Industrial Arts Education
- Personnel Services
- Secondary Education

Master of Arts, with major in one of the following:

- Accounting
- Economics
- English
- Finance and Insurance
- French
- Geography
- German
- History
- Inter-American Area Studies
- Latin
- Management and Business Law
- Marketing
- Mathematics
- Philosophy
- Political Science
- Psychology
- Real Estate
- Sociology
- Spanish
- Speech

Doctor of Education, with major in one of the following:

- Curriculum and Instruction
- Educational Administration
- Foundations of Education
- Guidance and Personnel Work

Doctor of Philosophy, with major in one of the following:

- Agricultural Economics
- Agronomy
- Animal Husbandry
- Bacteriology
- Biology (Zoology)
- Chemical Engineering
- Chemistry
- Civil Engineering, including
  - Sanitary Engineering
  - Structural Engineering
- Economics
- Economics and Business Administration
- Electrical Engineering
- Engineering Mechanics
- English
- Entomology
- Fruit Crops
- Geography
- History
- Inter-American Area Studies
- Mathematics
- Medical Sciences, including
  - Anatomy
  - Biochemistry
  - Microbiology
  - Physiology
- Pharmacy, including
  - Pharmaceutical Chemistry
  - Pharmacognosy
  - Pharmacology
  - Pharmacy
- Physics
- Plant Pathology
- Political Science
- Psychology
- Sociology (Latin American)
- Soils
- Spanish
- Speech
- Vegetable Crops

THE MASTER'S DEGREE

Residence.—For any master's degree the student must spend at least one full-time academic year, or equivalent, as a graduate student at the University of Florida.

If the work for the master's degree is done entirely in the summer, full-time study during four eight-week sessions will satisfy the residence requirement. This requirement may be reduced to (but not below) three eight-week summer sessions by transfer of work from another institution or by use of extension or other non-resident credit where accepted by the college concerned and by the Graduate Council.

Non-resident county agents in the Agricultural Extension Services may use three three-weeks summer sessions for the purpose of satisfying the residence requirement for the degrees Master of Agriculture or Master of Science in Agriculture, but only if they have also spent one regular semester in full-time resident graduate study (or two eight-weeks summer sessions) on the campus at the University of Florida.

Transfer of Credits.—Courses of full graduate level to the extent of 6 semester hours may be transferred from an institution approved for this purpose by the Graduate School. Acceptance of transfer credit requires approval of the student's supervisory committee and the Graduate Council. Non-resident or extension work taken at another institution (with the exception of Florida State University) may *not* be transferred to the University of Florida for graduate credit.

Time Limit.—All work for the master's degree must be completed within seven years from the time of first registration.

MASTER'S DEGREE WITHOUT THESIS

MASTER OF AGRICULTURE

The degree of Master of Agriculture is designed for those students who wish additional training before entering business occupations or professions, rather than for those interested primarily in research. The basic requirements, including those for admission, residence, supervisory committee, plan of study and admission to candidacy, are the same as for the Master of Science in Agriculture degree, as outlined elsewhere, but the work requirements are made to conform to the specific objectives of this degree.

Work Required.—A minimum of 36 semester hours of course work is required, at least 18 of which shall be designated strictly for graduates (numbered 600 and above);if a departmental major is claimed, 12 of these 18 hours must be in the major department. Each student's program is designed to take into account the qualifications and needs of the individual and is subject to the approval of the supervisory committee. A thesis is not required, but the student must submit reports, term papers, and records of work accomplished. A *comprehensive written qualifying examination*, given by the supervisory committee is required before the beginning of the second semester of work. Failure to qualify in this examination will result either in the student's elimination from the program or in taking additional course work. A *final oral examination* by

the supervisory committee covering the whole field of study of the candidate is required.

For further details, inquire of the Dean of the College of Agriculture.

MASTER OF BUSINESS ADMINISTRATION

The requirements for the Master of Business Administration degree have been designed to give the student broad general preparation for managerial work with emphasis upon developing his capacities and skills for business decision-making. Limited specialization in one or two fields is also possible.

Admission Requirements.—Completion of a minimum of 30 semester hours of undergraduate work in business administration and economics, including the following:

Economic Principles	6 semester hours
Statistics	3 semester hours
Accounting—Introductory	6 semester hours
Business Law	3 semester hours

ATG. 590—Survey of Accounting (3 semester hours) may be taken in lieu of the six semester hours of introductory accounting. At least fifteen hours of the undergraduate courses, excluding ATG. 590, must be in junior level courses or higher.

Students who have had no previous work in business administration or economics will be required to take a foundation program of at least thirty semester hours meeting the requirements stated above.

Course Requirements for Degree.—A program of thirty semester hours of course work is required. This program is as follows:

1. Courses required of all candidates

BS. 679 Advanced Business Policy	3 semester hours
BS. 690 Business Research and Reports	3 semester hours
ES. 615 Economics of Business Decisions	3 semester hours
ES. 616 Economic Environment of Business	3 semester hours

2. Courses required of all candidates unless waived because of acceptable undergraduate courses taken in the same area:

BS. 610 Managerial Accounting	3 semester hours
BS. 664 Managerial Statistics	3 semester hours
BS. 671 Human Relations in Business	3 semester hours

3. Requirements in the fields of marketing, production management, and corporation finance:

   All candidates must complete at least one basic course in each of the fields of marketing, production management, and corporation finance. Such courses may be taken either as a part of the undergraduate program or as a part of the graduate program, within the limits noted. Candidates deficient in marketing will take MKG. 531, Marketing Principles and Institutions (3 semester hours). Candidates deficient in production management will take MGT. 575, Production Management Problems (3 semester hours).

Candidates deficient in corporation finance will take FI. 427, Corporation Finance (3 semester hours). Of these three courses, only MGT. 575, Production Management Problems, and either one but not both of the other two courses may be used in satisfying the thirty hour requirement for the degree. The result of this will be that a student who is deficient in all three fields or in both marketing and corporation finance will have to complete thirty-three hours for the degree.

4. Electives: The remaining hours will be selected from graduate and advanced undergraduate courses in the candidate's field or fields of interest. A candidate should avoid undue specialization in the selection of his electives.

Examinations.—Each candidate will be required to pass both a written and an oral examination on his graduate work. The written examination will be given toward the end of the semester in which he expects to receive his degree and will be designed to test his ability to deal with the problems normally confronting business administrators. It will consist primarily of the analysis of a business case requiring the use of the various disciplines included in the curriculum. The oral examination will be given after the written and will be administered by a committee of three appointed from the graduate Faculty of the College of Business Administration.

MASTER OF EDUCATION

Purpose.—This degree is designed to increase the professional preparation of school personnel. The program has been planned to develop in public school workers a wide range of essential abilities and to give a broad background of advanced general education, rather than to encourage narrow specialization.

The Master of Education program seeks to develop the student in:

1. An understanding of the nature of the individual and the learning process;

2. An understanding of the purposes, issues, and trends of education in American democracy;

3. An understanding of the social realities of our time and how these influence the educative process;

4. A comprehensive, internally consistent pattern of values in keeping with our democratic traditions; a value-system which the student can apply where issues are concerned;

5. A personal philosophy of education which he can make explicit and which is consistent with his value patterns;

6. The ability to think and act creatively and adequately within his area of specialization or field of work, i.e., to see new problems, work out solutions, and communicate to others the results of his thinking and acting.

Description.—The Master of Education degree is offered under two plans.

Plan I is for secondary and junior college teachers who seek increased teaching skill and greater depth and scholarship in their teaching field. It is offered

in the departments of Foundations of Education, Secondary Education, including Business Education, and Vocational Agriculture.

The minimum program for the M.Ed under Plan I is 36 hours of course work above the 300 level, 18 of which must be at the 600 level or above with 18 hours of course work outside of the College of Education for students who have graduated from departments or colleges of education or who hold a regular Florida Graduate Certificate to teach. (For students who have graduated from colleges other than education, the total number of hours outside of education may be reduced but in no case to less than 6 hours.) The minimum requirement of course work in education under Plan I is either (a) 24 hours in the master's program with 18 hours at the 600 level or above, or (b) 36 hours at any level in the combined undergraduate and graduate program. For students with an undergraduate major in education the minimum number of hours in education is 12.

Plan II is used for specialized school personnel and elementary and industrial arts teachers and is offered in the departments of Educational Administration, Elementary Education, Industrial Arts Education, and Personnel Services.

The minimum program for the M.Ed. under Plan II is 36 hours of course work above the 300 level, 18 hours of which must be at the 600 level or above, with a minimum of 6 hours of course work outside of the College of Education. The student's undergraduate and graduate program must include a minimum of 36 hours of course work in education.

Transfer of Credits.—If recommended in advance by the Graduate Committee and approved by the Dean of the Graduate School, a student may be permitted to study in other institutions to the extent of (but not to exceed) 6 semester hours. No graduate credits earned prior to admission to the University may be transferred without special recommendation of the Graduate Committee and the approval of the Graduate Council. No more than 6 semester hours of credit may be thus transferred.

Work Required.—Instead of having a fixed requirement of majors and minors, each student will be required to submit a plan of study which shows acceptable balance and direction. The planned program is approved by the student's counselor, the department head and the Office of Graduate Studies in Education. After the program has been developed, any changes must be requested in writing and similarly approved.

Of the minimum course requirement of 36 semester hours, not more than 9 may be taken in any summer term (6 in six weeks, 3 in three weeks), and not more than 15 in any one semester.

Six semester hours of workshop or extension courses may be allowed and will count as resident credit. Courses designated as field laboratory courses may be taken to the extent of 6 semester hours of credit.

Limit on Off-Campus Work.—It should be noted that the University imposes a limit of 12 hours of credit in the aggregate on work allowed from (1) off-campus workshops and extension courses, (2) field laboratory courses, and (3) courses transferred from other institutions.

Although a reading knowledge of a foreign language is not required, correct and effective use of the English language is expected of all candidates.

Admission to Candidacy.—Admission to candidacy for the Master of Education degree is recommended to the Graduate Council by the Graduate Committee of the

College of Education on the basis of an unassembled examination to be given at the end of from 12 to 18 semester hours of graduate work at the University of Florida.

The unassembled examination includes: (1) the student's academic record to date, (2) the student's scores on the *Graduate Record Examination* (3) evidence of competency in the use (oral and written) of the English language, (4) evaluation of personal qualities and promise of professional attainment by persons to whom the applicant's record is known, (5) the student's experience record and (6) other appropriate information.

The unassembled examination is administered through the Office of Graduate Studies in Education for the Graduate Committee and evaluated by a committee of the faculty, which may recommend supplementary oral and/or written examinations for students whose admission to candidacy is in doubt.

The student's remaining program of study may be revised if needed after the Admission to Candidacy Examination. On approval of the Graduate Committee, the candidate will be recommended for the degree upon the satisfactory completion of the designated course work. The faculty reserves the right to review the student's entire record before recommending graduation.

The candidate must have completed at least one year of teaching (or the equivalent) prior to taking the last 6 semester houre of work, or must have included in his record the satisfactory completion of an internship program or a minimum of 6 semester hours of student teaching.

The Graduate Committee of the College of Education.—A special counselor is appointed for each student in the Master of Education program. His work is under the general supervision of the Graduate Committee in the College of Education. The program is administered through the Office of Graduate Studies in Education.

MASTER OF PHYSICAL EDUCATION AND HEALTH

Work Required.—A minimum of 30 semester hours of course work is required, at least 18 of which must be courses in the fields of Physical Education, Health Education or Recreation designated strictly for graduates, or courses numbered 500 and above if approved for graduate major credit. Of the remaining 12 hours, at least 9 semester hours must be taken in courses outside the College of Physical Education and Health. At least 50 per cent of the minimum course requirements shall be from courses numbered 600 and above. The major for the degree is physical education.

All degree candidates must complete Florida teaching certification requirements in Physical Education by the conclusion of the master's degree program. Certification requirements must be met as a part of and/or in addition to degree requirements, if not already completed before admission to graduate study.

Supervisory Committee.—A committee of five members of the faculty of the College of Physical Education and Health, with the Dean of the College or some person designated by him serving as chairman, and the Dean of the Graduate School as an exofficio member, will supervise the work of students registered in this program, subject to the approval of the Graduate Council.

Admission to Candidacy.—Admission to the work of this program is not a guarantee that the student will be admitted to candidacy for the degree. The

student will be required to pass a written and/or oral examination in addition to being recommended by the supervisory committee for admission to candidacy. This examination should be taken by the end of the student's first semester of residence.

Final Examination.—A thesis is not required but the candidate must pass a final examination at the close of his course work. This written and/or oral examination will be administered by the supervisory committee and will be confined largely to the student's major field of study.

MASTER OF REHABILITATION COUNSELING

The interdisciplinary program leading to the degree of Master of Rehabilitation Counseling is designed to give students basic knowledge and professional skills essential to the rehabilitation of physically and mentally handicapped persons. The diversity of activities performed by individuals in the various state, federal, and private agencies who bear the designation rehabilitation counselor necessitates a program that permits a basic foundation in counseling and guidance and, at the same time, allows for a sound preparation in the medical, socio-psychological, and vocational implications of disability. The fundamental purpose of the program, therefore, is to present a systematic and integrated study of the basic knowledges and skills needed by the rehabilitation counselor.

The minimum requirement is 36 semester hours, of which 18 hours represent required work in rehabilitation courses and an internship. An additional minimum of 18 hours is selected from designated courses; i.e., 6 hours in each of the following areas: (1) Testing and Measurement, (2) Personality Development, and (3) Counseling. The selection of the 6 hours in each of the three areas is made on the basis of meeting the individual needs of the student and subject to the approval of a supervisory committee. Students who have previous education in one or more of these areas will be permitted to substitute other appropriate courses. Those who lack previous educational background in these areas will be required to take additional work before undertaking this program. At least fifty per cent of the minimum course requirements shall be from courses numbered 600 and above. The courses outside the major department may be at the 300, 400, and 500 levels. A thesis is not required. A reading knowledge of a foreign language is not required.

Policy Committee.—A committee of five members of the faculty representing the College of Education, Department of Psychology, College of Medicine, College of Health-Related Services, with the professor in charge of Rehabilitation Counseling serving as chairman, and the Dean of the Graduate School as an ex officio member, will determine policy and, in general, supervise the work of students registered in this program.

Admission to Candidacy.—Admission to the work of this program is not a guarantee that the student will be admitted to candidacy for the degree. When a student has completed 12-15 semester hours of graduate work at the University of Florida, he is required to apply for admission to candidacy for the degree using the forms provided for the purpose in the office of the Dean of the Graduate School. Admission to candidacy for the Master of Rehabilitation

Counseling degree will be recommended to the Graduate Council by a supervisory committee of the College of Health-Related Services on the basis of a review of his work, his personal traits and any other appropriate information to determine his eligibility to proceed further toward the degree program.

Final Examination.—A thesis is not required for the degree Master of Rehabilitation Counseling, but the candidate must pass a final examination at the close of his course work. This written and/or oral examination will be confined largely to the student's major field of study.

MASTER OF ARTS AND MASTER OF SCIENCE IN TEACHING

These degrees are designed for graduate students majoring in the departments of the College of Arts and Sciences who intend to teach in junior or four-year colleges. Requirements for admission are the same as for the regular M.A. and M.S. degrees in the College of Arts and Sciences, and, like the work for those degrees, programs leading to the M.A.T. and M.S.T. may with proper approvals be incorporated into programs leading to the Ph.D.

The requirements for the degrees are as follows:

1. A reading knowledge of one foreign language
2. Completion of the requirements for Florida Junior College Certification. The plan of certification most appropriate to this degree is Plan III, which is stated as follows on page 258 of the *State Board Regulations Relating to Florida Requirements for Teacher Education and Certification* (revised and adopted, October 1956):

   "The Applicant must

   1. Hold a masters degree or higher
   2. Present credit in Educational Psychology, sociology (educational or community), and curriculum dealing with the junior college totaling at least 9 semster hours.
   3. Present an internship carrying credit of at least 6 semester hours, or present three years of successful teaching experience.
   4. Present 36 semester hours in the subject area in which certification is sought with at least 12 semester hours at the graduate level."

3. Satisfactory completion of at least 36 semester hours of work while registered as a graduate student, this work to be distributed as follows:

   21 semester hours in the major and minor (minimum for the major: 12 hours; minimum for the minor: 6 hours)
   6 semester hours in a departmental internship as described below
   9 semester hours in the studies prescribed in item 2 of the State certification requirements. If any or all of these studies have been satisfactorily completed before the program is begun, the semester hours thus made available may be used for further work in the major or minor, in Education, or in a thesis.

The internship will be organized as a total of six credit hours over two semesters (under the direction of the major department) in which the student will (1) attend a seminar on the problems, methods, and duties of the college teacher of the student's major subject, (2) assist a professor approved for the purpose by the department head in conducting a course throughout a semester, this assistance to include teaching under observation at least one third of the classes in the course, attendance at the remaining classes, preparing and grading examinations, and participation in all other essential activities which the organization and administration of the course may entail, (3) attend faculty meetings and be given practice in all the essential activities involved in being a college teacher of his subject.

MASTER'S DEGREE WITH THESIS

Required Registration.—The minimum registration required for the master's degree with thesis is 30 semester hours, including no less than 24 semester hours of regular course work and 6 semester hours of the research and thesis course numbered 699 in all departments.

A least one-half of the required 24 hours of regular course work must be in a single field of study designated the major, and the remainder, called the minor, must be in a different but related subject matter. One 6-hour minor is required; two 6-hour minors or one 12-hour minor may be taken. Minor work must be in a department other than the major. In special cases this requirement may be modified, but only with the written permission of the Dean of the Graduate School.

The work in the major field must be in courses designated strictly for graduates (numbered 600 and above), or in undergraduate courses designated by the Graduate Council as available for graduate major credit. For the minor, courses numbered 300 and above may be taken.

At least 50 per cent of the required 24 semester hours of regular course work must be in courses numbered 600 and above. Registration in 699 is limited to a total of 12 semester hours.

Thesis.—All candidates for this degree are required to prepare and present a thesis (or equivalent in creative work) acceptable to their supervisory committees, the Dean of the Graduate School, and the Graduate Council. The candidate should consult the office of the Dean for instructions concerning the form of the thesis. The original copy of the thesis, bound in temporary binding, and accompanied by three copies of a brief abstract, must be in the Dean's office on or before the dates specified in the University Calendar. After the thesis is accepted, the original copy, together with the first carbon copy, will be deposited in the University Library.

Language Requirements.—(1) The requirement of a reading knowledge of a foreign language is left to the discretion of the student's supervisory committee or college. When a foreign language is required, the examination will be conducted by the Department of Foreign Languages; if an examination has already been passed at another institution, it must be validated at the University of Florida by the Department of Foreign Languages. If the student is majoring in a foreign language, that language may not be used to satisfy this requirement. The foreign language requirement must be satisfied before the student is admitted to candidacy. (2) The ability to use the English language correctly and effectively,

as judged by the supervisory committee, is required of all candidates for this degree.

Special Supervisory Committee.—A special supervisory committee of not less than three members will be appointed for each student by the Graduate Dean upon the recommendation of the college concerned. This committee should be appointed as early as possible after the student has been admitted to the Graduate School and, in general, not later than the end of the first semester of study. The Dean of the Graduate School is an exofficio member of all supervisory committees.

Admission to Candidacy.—When a student has completed about one-half of his work for his degree, he should apply for admission to candidacy for that degree, using the forms provided for the purpose in the office of the Dean of the Graduate School. In order to be admitted to candidacy, the student must have (1) maintained a "B" average in registered course work, (2) passed a foreign language examination and a qualifying examination (if these are required in his curriculum), (3) chosen his thesis topic, (4) satisfied his supervisory committee, department head, and college dean that he is qualified to become a candidate for his degree. It is the responsibility of his supervisory committee at this time to make such investigation as is necessary to determine his eligibility.

General Examination.—When all of the student's work is completed, or practically so, including the regular courses and the thesis, his supervisory committee is required to examine him orally or in writing or both on (1) his thesis, (2) his major subject, (3) his minor or minors, (4) matters of a general nature pertaining to his field of study. Using the form provided for the purpose the committee shall report in writing to the Dean of the Graduate School not later than one week before the time for the conferring of the degree whether all work has been completed in a satisfactory manner and whether on the basis of the final examination the student is recommended for his degree. In no case may this examination be scheduled earlier than six months before the degree is to be conferred, without special approval of the Graduate Council.

Special Thesis Abstract Required.—At the request of the State Department of Education of the State of Florida, the College of Education requires all candidates for the degree of Master of Arts in Education to prepare a 750 word abstract of the thesis, which is forwarded to the State Department for informational purposes.

THE ADVANCED SCHOOL OF THE COLLEGE OF EDUCATION

The Advanced School of the College of Education offers two degrees, the degree of Specialist in Education and the Doctor of Education degree. Work in the Advanced School will be available only to those who have shown a high degree of ability in their first year of graduate work. The purpose of the Advanced School is to develop leadership, research competency, and specialization.

Admission to the Advanced School in Education.—Admission to the Advanced School will be open only to persons who have:

1. Successfully completed 36 hours of professional course work in education.

2. Presented a record of successful professional experience, the appropriateness of which will be determined by the instructional department passing on the applicant's qualifications for admission. In some instances, departpartments may admit students with the understanding that further experience may be required before the student will be recommended for the degree.)

Admission to the Advanced School will be based on the following criteria:

1. High scholastic average during the fifth-year work (3.5 honor-point average or above, as computed at the University of Florida, will be considered evidence of good scholarship);
2. Results from the Graduate Record Examinations—Scholastic Aptitude and Advanced Education Tests;
3. Results from the Miller Analogies Test;
4. An oral examination administered by the department in which the student seeks to specialize;
5. Special interviews for individuals for whom the department of specialization seeks more data.

The judgment concerning admission of an individual student will be based on the consideration of a student's performance in all of these areas by the department in which the student desires to specialize. The department will certify to the Admission Committee that the student has met the criteria for admission to the Advanced School.

In all cases the record, experience, and personal qualifications of the person applying for admission are subject to the approval of the Admissions Committee.

Where possible, students should seek admission to the Advanced School before enrolling in any courses beyond the master's degree. Where this procedure is impossible, the student will register in the Graduate School and during the first semester of his work beyond the master's degree apply for admission to the Advanced School. If such candidate is found to be eligible, appropriate work taken during that term will be included in the planned program.

After completion of the fifth year any student approved by the Admissions Committee may register for courses, but admission to the Advanced School must be obtained before work may be counted for degrees or certificates above the master's level.

SPECIALIST IN EDUCATION

If the student chooses the Specialist in Education degree he will plan a minimum 36 hour program with his counselor, which must include at least 24 hours in courses open only to graduate students.

A maximum of 6 hours of transferred credit may be included. Such work must have been completed in an institution which offers the doctor's degree. No extension work may be transferred. Up to 6 hours in appropriate field laboratory courses, or 3 hours in field laboratory and 3 hours in regular extension courses offered by the General Extension Division of the University of Florida and Florida State University may be included.

The planned program of specialization must include at least 24 hours in courses open only to graduate students and the remainder in courses open to graduate and undergraduate students. The student may specialize in any of the established areas of the College of Education.

A thesis is not required. Emphasis is placed upon the use of research rather than upon the development of skills in research techniques.

Admission to the Advanced School, the successful completion of one semester of work, and the approval of the department of specialization will constitute admission to candidacy for the Specialist in Education degree.

At the end of the 36-hour program the student will be given a final written and a final oral examination by a committee selected by the head of his area of specialization. Upon passing the examination the candidate will be awarded the Specialist in Education degree upon the approval of the faculty, and the Graduate Council.

The Ed.S. is planned as a terminal degree. If at the end of his program the student wishes to work for the Ed.D. he must meet the requirements stated for that degree.

Time Limit.—All work for the Specialist in Education degree must be completed within seven years from the time of first registration.

DOCTOR OF EDUCATION

The Doctor of Education degree is offered in Curriculum and Instruction, Educational Administration, and Foundations of Education. Each Doctoral candidate is expected to achieve understanding of the broad field of Education and competencies in the area in which he chooses to specialize.

Administration of the program leading to this degree is cared for through the Office of Graduate Studies in Education, which carries out the policies of the Graduate School and the Graduate Committee of the College of Education.

Admission to a program of work leading to the degree of Doctor of Education requires admission to the Advanced School of the College of Education, described previously, as well as admission to the Graduate School of the University of Florida.

All courses beyond the master's degree taken at another institution, to be applied toward the Doctor of Education degree, must be taken at an institution offering the doctor's degree and approved for the transfer of graduate credit by the Graduate School of the University of Florida.

Minors.—Minor work, or work in cognate fields is required. If one minor is selected, at least 18 hours of work therein will be required; if two minors are chosen, one must have at least 12 hours of course work, the other at least six. Minors may not be taken in any branch of Education.

In lieu of a minor or minors, the candidate may present a suitable program of not less than 18 hours of cognate work in at least two or more departments outside the College of Education. If two fields are included, there shall be no less than six semester hours in either field. If there are three or more fields included, the six-hour requirement for each field does not apply. This program must have the approval of the student's supervisory committee. The College of Education faculty will expect the candidate to be prepared to answer questions, at the time of his oral examination, in any of the areas so chosen.

Admission to Candidacy.—Admission to candidacy for the degree of Doctor of Education rests on successful completion of the qualifying examination. Recommendation to the Graduate School for admission to candidacy is based on action of the supervisory committee, subject to the approval of the Graduate Committee of the College of Education.

The Qualifying Examination.—The applicant is recommended for the qualifying examination by his supervisory committee after he has completed sufficient course work and the research preparation requirements of the College of Education.

The examination administered by the Graduate Committee of the College of Education consists of (1) a general section, (2) a field of specialization section, (3) examination in the minor or minors, where involved, and (4) an oral examination conducted by the applicant's supervisory committee. With the approval of his supervisory committee, a student seeking admission to candidacy may take the general section of the examination at one scheduled examination period, and the area of specialization examination at another.

Re-examination.—If the student fails in his qualifying examination, he will not be given a re-examination unless for special reasons such an examination is recommended by his supervisory committee and approved by the Graduate Council. At least a semester of additional preparation is considered essential before re-examination.

The Seminar.—Each student is required to develop a thesis project to be considered by a general doctoral seminar in the College. Participants in the seminar will be faculty members of the college, other advanced students, and members of the supervisory committee.

Research Preparation Requirement.—This requirement is satisfied by meeting the requirements in both Group 1 and Group 2 below:

Group 1.—(1) a course in Education Research (EDF. 760) and
(2) the *library* usage examination (usually given in connection with EDF. 760 at the University of Florida), and
(3) a basic course in *statistics* (EDF. 360, or PSY. 211, or MS. 310, at the University of Florida).

Group 2.—either
(1) a reading knowledge of one foreign language relevant to the student's need, *or*

(2) one of the following courses in measurements, statistics, or research: SY. 547 or SY. 670; EDF. 660 or PSY. 605; EDS. 605 or EDE. 702; EDF. 450; EDF. 650; EDP. 613; PSY. 503, PSY. 504, PSY. 626, PSY. 632, PSY. 633, or PSY. 743; PHA. 604 or PHA. 510.

There is no language requirement for the Doctor of Education degree. Courses taken at other institutions which may be the equivalent of course requirements indicated above may be considered, on recommendation of the applicant's supervisory committee.

Abstracts.—For the purpose of inclusion in a summary of research studies in Education, published by the College of Education, the candidate must supply one 1500-2500 word abstract of his dissertation, in addition to such other abstracts as may be required by the Dean of the Graduate School.

For information relating to *Residence*, the *Supervisory Committee*, *Time Limit*, the *Dissertation*, *Publication of the Dissertation*, and the *Final Examination*, the student is referred to the material presented under the heading *Doctor of Philosophy*. These statements are applicable to both degrees.

DOCTOR OF PHILOSOPHY

Course Requirements.—Doctoral study consists of the independent mastery of a field of knowledge and the successful prosecution of research, rather than in following out the steps of an established curriculum. For this reason, doctoral students are thrown in large measure on their own responsibility, and doctoral programs are more flexible and varied than those leading to lower degrees. The Graduate Council does not specify just what courses will be required for the Ph.D. degree, or how many. The basic general requirement is that the program should be unified in relation to a clear objective and that it should have the considered approval of the student's supervisory committee.

At least one and not more than two minors must be taken. The minor or minors may occupy as much as one third of a student's total time, or, roughly, one-half of the time devoted to course and seminar work.

Supervisory Committee.—The supervisory committee for a candidate for the degree of Doctor of Philosophy should consist of at least five members, chosen from the Graduate Faculty. At least three members should be from the college or department recommending the degree, and one or two members should be drawn from a different educational discipline for the purpose of representing the student's minor or minors and furthering the coordination on this campus between colleges and disciplines. Supervisory committees are nominated by the department head (in no case by the student), approved by the dean of the college, and appointed by the Dean of the Graduate School. It is recommended that the supervisory committee be appointed as early as possible after the student has been admitted to doctoral work and in general not later than the end of the first semester of study. The Graduate Dean is an ex officio member of all supervisory committees.

The duties of the supervisory committee are as follows:

1. To inform the student of all regulations governing the degree sought. It should be noted that this does not absolve the student from the responsibility for informing himself concerning these regulations. (See *Student Responsibility.*)

2. To meet immediately after appointment to pass on the qualifications of the student and to discuss and approve a program of study for him.

3. To meet to discuss and approve the proposed dissertation project and the plans for carrying it out.

4. To conduct the qualifying examination, or, in those cases where the examination is administered by the department, to take part in it.

5. To meet when the work on the dissertation is at least one-half completed to review procedure, progress, and expected results and to make suggestions for completion.

6. To meet when the dissertation is completed to conduct the final oral examination and to satisfy itself that the dissertation is a piece of original research and a contribution to knowledge.

Language Requirement.—Except as noted below, a reading knowledge of two languages other than English is required. These languages will normally be French and German, but they may be any languages which can be shown to be of significant use in the field of study in which the student is taking his degree. However, a combination of two modern Romance languages is not permitted. In all cases where the language chosen is other than French or German, the student will be required to justify his choice and to obtain the approval of his supervisory committee, his college, and the Graduate Council. Justification of choice will be accomplished by showing the existence of an acceptably sizable or rapidly growing body of relevant scholarly material in the language in question.

As an alternative to a reading knowledge of two languages other than English, a candidate for this degree may substitute a functional knowledge of one such language. A functional knowledge of a language is understood to mean the ability to read, write, and speak that language with reasonable ease and accuracy. This alternative is subject to the approval of the student's supervisory committee and college as well as the Graduate Council, and is permitted only when the knowledge of the language chosen can be shown to be needed in the preparation of the dissertation. For students in the Latin American Area Studies Program special requirements apply.

Knowledge of the languages presented will be tested and certified by the Department of Foreign Languages or by individuals or groups approved by this department. Where it is necessary for the examination to be conducted by individuals from outside the University, any expense involved will be borne by the student.

In certain departments individually approved by the Graduate Council (Business Administration, Agricultural Economics, and Animal Husbandry and Nutrition), a study of mathematics may be substituted for a reading knowledge of one foreign language. When this substitution is chosen, the courses in mathematics taken for this purpose may not be considered a part of the major or minor studies. The degree of proficiency in mathematics shall be determined as follows:

1. For a field in which calculus is not included through the master's degree, the student shall take and pass with a "B" or better the final examination in MS. 354 and any other courses in the Department of Mathematics specified by his supervisory committee.

2. For a field in which calculus is included as part of the bachelor's or master's program, the student shall either pass with a "B" or better, or demonstrate equivalent proficiency by written examination in 6 semester hours of work in the Department of Mathematics requiring MS. 354 as a normal prerequisite.

The language requirement should be met as early as possible in the student's program and must be met before the student can be admitted to the qualifying examination.

Residence.—(1) The minimum residence requirement is three academic years of full-time resident graduate study, or equivalent, at institutions approved by the Graduate School. Either the second or the third academic years of the three-year program must be spent in full-time study (except as noted in the following paragraph) on the campus of the University of Florida. Candidates in Agronomy, Animal Husbandry, Horticulture, Plant Pathology, and Soils may do their research at certain branch stations of the University of Florida Agricultural Experiment Station where adequate staff and facilities are available.

(2) In calculating residence, part-time study is evaluated on the basis of 15 semester hours as equal to a full load. Part-time study may be substituted for the year of full-time study stipulated in the preceding paragraph in either of the following proportions: (a) 30 semester hours earned in one calendar year; (b) 35 semester hours in four successive registrations (either including or excluding summer session registrations). An overload program, even when approved, will be valued as a normal program in meeting this residence requirement.

(3) Between the qualifying examination and the conferring of the degree, there must elapse a minimum of one academic year if the candidate is in full-time residence, or one full calendar year if the candidate is on less than a full-time basis.

Qualifying Examination.—The qualifying examination, which is required of all candidates for the degree of Doctor of Philosophy, may be taken during the second term of the second year of graduate study. The examination, conducted by the special supervisory committee, with the aid of the major and minor departments, is both written and oral and covers the major and minor subjects. The supervisory committee has the responsibility at this time of deciding whether the student is qualified to go on with work toward the Ph.D. degree.

If the student fails in his qualifying examination, he will not be given a re-examination unless for special reasons such an examination is recommended by his supervisory committee and approved by the Graduate Council. At least a semester of additional preparation is considered essential before re-examination.

Time Limit.—All work for the doctor's degree must be completed within five calendar years after the qualifying examination or this examination must be repeated.

Admission to Candidacy.—A graduate student does not become an actual candidate for the Ph.D. degree until he has been formally admitted to candidacy. Such admission requires the approval of the student's supervisory committee, the head of his department, his college dean, and the Dean of the Graduate School, and the approval must be based on (1) the academic record of the student, (2) the opinion of his supervisory committee concerning his over-all fitness for candidacy, and (3) a qualifying examination as described above. Application for admission to candidacy should be made at about the end of the second or the beginning of the third year of graduate study.

Dissertation.—A satisfactory dissertation showing independent investiga-

tion and research is required of all candidates. Since all doctoral dissertations will be published by microfilm, microcard, or printing, it is necessary that the work be of publishable quality and that it be in form appropriate for publication. The original copy of the dissertation must be presented to the Graduate Dean on or before the date specified in the University Calendar. The sum of $50 must be deposited with the Business Manager to cover the cost of publication as explained below.

Publication of the Dissertation.—Candidates for the Ph.D. and Ed.D. degrees may choose among the following three alternatives in the publication of their dissertations.

(1) Microfilm publication. In this case the University will refund $25 of the deposit as soon as the dissertation has been accepted and the final examination passed.

(2) Microcard publication. In this case the University will determine the cost of publication and either return any un-needed portion of the deposit or bill the student for any excess in cost above $50.

(3) Two-year postponement. The student may request a two-year period to investigate possibilities of publication by printing. If the dissertation is published as a book or monograph in essentially complete form, the Graduate Council will consider a request for refund of the entire deposit upon receipt of five copies of the published work. At the end of the two-year period, unless evidence of acceptance of the dissertation for such publication has been presented, the Graduate Council will authorize publication by microfilm as indicated under (1) above.

Copyright.—Under (1) above the student may choose to copyright his dissertation before publication. The charge involved will be deducted from the $50 deposit before refund can be arranged.

Final Examination.—After the acceptance of the dissertation and the completion of all other prescribed work for the degree, but in no case earlier than six months before the conferring of the degree, the candidate will be given a final examination, oral or written or both, by his supervisory committee. Satisfactory performance on this examination completes all requirements for the degree.

SPECIAL PROGRAMS

There are a number of special graduate programs that are described in detail in the University Catalog. Students interested in the following programs are referred to the catalog for complete information:

School of Inter-American Studies.

Graduate Program in Public Administration

Research Program at The Oak Ridge Institute of Nuclear Studies

Statistical Laboratory

Graduate Program in Community Planning

SUMMER INSTITUTE FOR HIGH SCHOOL TEACHERS OF SCIENCE AND MATHEMATICS

June 11-August 8, 1959

A Summer Institute for High School Teachers of the Sciences and Mathematics has been made possible by a grant to the University of Florida from the National Science Foundation. The objectives of the program are to give qualified teachers an opportunity to increase their knowledge and teaching ability in the subject matter fields of Biology, Chemistry and Mathematics. In order to participate in the institute a student must have been admitted to the Graduate School.

Applications for scholarships in the Institute were closed on February 16, 1959. However, a limited number of regular summer school students may register for the course work offered in the Institute in Biology, Chemistry or Mathematics.

THE GUIDANCE INSTITUTE

June 11-August 8, 1959

An Institute on "The Role of the School Counselor in the Development of Human Resources" will be conducted by the Department of Personnel Services in the College of Education for the full length of the summer session. The Institute is being held under terms of a grant from the U. S. Office of Education under the National Defense Education Act. Students are accepted in this Institute on the basis of application. In order to participate in the institute a student must have been admitted to the Graduate School. Participants in the Institute will register for 6-9 semester hours of work designated in the Education—Personnel Services section of the eight-weeks schedule of courses in this bulletin. Deadline for filing completed applications is May 4, 1959. Inquiries should be addressed to Dr. Ted Landsman, College of Education, University of Florida, Gainesville, Florida.

SPECIAL THREE WEEK COURSES

The courses listed in this section are for special groups and run for three weeks only. Students registering for courses listed in this section follow the same admission and registration procedures as other students but are limited to a maximum load of three semester hours.

June 11-July 3

AGRICULTURAL ECONOMICS

AS. 404.—Principles of Farm Business Analysis. 1½ credits.
9:20 Daily MCC 37 GREENE, R. E. L.
Laboratory: 1:00-4:00 Monday MCC 37

This course is designed to help students understand how basic economic principles can be applied in the successful management and operation of a farm.

AGRICULTURAL EXTENSION

GRADUATE COURSES

AXT. 601.—Advanced Rural Leadership. 1½ credits.
10.30 Daily MCC 2 SENN, P. H. and STAFF
Laboratory: 1:00-4:00 Tuesday MCC 2

AXT. 621.—Research in Agricultural Extension. 1½ credits. Prerequisite: Consent of instructor.
Section 1. To arrange. MCC 5 SENN, P. H. and STAFF

Library and workshop relating to Agricultural Extension Methods. Research work is studied, publications reviewed and written reports developed.

COMMUNICATIONS

COM. 518.—Teaching through Television. 3 credits. Prerequisite: Graduate or senior standing, or permission of instructor.

Lecture-laboratory: 8:30-3:30 Daily STA 114 Television Staff

Study of the elements of television program production as applied to educational and informational programs, planning, preparation and production of programs in the television studio.

EDUCATION—ELEMENTARY

EDE. 602.—Practices in Elementary Education, II. 3 credits.
Section 1. 10:20-12:40 and 2:00-4:10 Daily NRN 43

Emphasis is placed upon an interdisciplinary approach to problems in social learnings of elementary children.

EDUCATION—FOUNDATIONS

EDF. 640.—Problems in Pupil Development and Learning. 3 credits.
8:10-10:20 and 12:40-2:00 Daily NRN 43 WATKINS, L. E.

Study is made of problems of particular interest to students in the field of pupil growth and learning.

EDUCATION—PERSONNEL SERVICES

EDP. 613.—Personnel Testing. 3 credits.
Prerequisite: EDF. 360 or EDF. 450 or permission of instructor.
Section 3 9:30-11:30 and 1:00-3:30 Daily MED SCHOOL GUTHRIE, F. A.

A study of typical aptitude tests and inventories used in personnel work, with assigned readings in test literature. Procedures for standardizing and validating tests will be considered, with emphasis on the evaluation of the various instruments for use in personnel work.

EDUCATION—VOCATIONAL AGRICULTURE

EDV. 671.—Adult Education in Agriculture. 3 credits.
8:10-11:40 Daily AGE 114 LOFTEN, W. T.

Adult education in agriculture will form the core of this course. The problems will involve the organization of classes, procedures in teaching, and evaluation.

FAMILY LIFE

FAM. 430.—Individual Work. 1½ credits. Prerequisites: FAM 301 and permission of Head of Department.
9:20 Daily AE 4 ALBRECHT, R. E.
Laboratory: 1:00-4:00 Th MCC 148

FRUIT CROPS

GRADUATE COURSE

FC. 650.—Projects in Citrus Production (Spray Schedules)
8:10 Daily MCC 105 ZIEGLER, L. W.
Laboratory: 12:50-4:10 Tuesday MCC 105

1 hour, and 4 hours field work. 3 credits per project. Maximum 12 credits. Prerequisite: FC. 341 or its equivalent and consent of instructor. Offered 2, 3. Field work during second semester followed by classroom work in summer session. No credit until project is completed. Offered primarily to Agricultural Extension workers and Vocational Agriculture teachers. Each time it is offered, this course will be announced in the schedule of courses with one of the following projects specified: Stocks and Scions, Fertilization, Spray Schedules, or Maturity and Grade.

JOURNALISM

JM. 320.—Agricultural Journalism. 3 credits. Prerequisite: Junior standing or permission of the instructor.
Lecture-laboratory: 8:30-11:30 a.m. Daily and 1:00-4:00 p.m. TTh
GREIGGS, H. H.

Fundamental instruction in the gathering and writing of agricultural news for daily and weekly newspapers, radio, and farm periodicals, with special attention being given to the techniques of publishing the activities of agricultural and home demonstration workers.

ORNAMENTAL HORTICULTURE

OH. 499.—Special Problems in Ornamental Horticulture. 1½ credits.
7:00 Daily MCC 6 MC ELWEE, E. W. and STAFF
Laboratory: 1:00-4:00 Wednesday and Friday HGH

Individual research work in various phases of Ornamental Horticulture.

GRADUATE COURSE

OH. 670.—Non-Thesis Research in Ornamental Horticulture. 1½ credits.
7:00 Daily MCC 6 MC ELWEE, E. W. and STAFF
Laboratory: 1:00-4:00 Wednesday and Friday HGH

SPECIAL FOUR WEEK COURSE

June 11-July 10

Enrollment limited to selected educators from certain counties in Florida. Not open to general registration. Application forms may be obtained by writing the instructor and the application must be approved prior to June 1, 1959.

PHYSICAL EDUCATION, HEALTH AND ATHLETICS

PHA. 491.—The Operation of Community Health Education Programs. 3 credits.
Prerequisite: Permission of the instructor.
9:20-12:40 Daily FLG 210 SOLLEY, W. H.

Problems in operating community programs of health education. Field experiences in the student's local county health agencies, both official and voluntary. The course is offered in cooperation with the College of Education, the State Department of Education and the State Board of Health.

SPECIAL THREE WEEK COURSES

July 6-July 24

EDUCATION—ELEMENTARY

EDE. 670.—Language Arts in the Elementary School-Skills. 3 credits.
9:20-11:30 and 1:00-3:00 Daily NRN 43 WENZEL, E.

A study of current practices and trends in teaching reading, listening and oral and written expression.

SCHOOL ART

SCA. 333.—Planning the Art Curriculum. 3 credits.
8:10-11:30 and 1:00-3:00 Daily

A study of various types of school art expression based on an understanding of the needs of elementary school children. Experiences with many types of art media will be provided.

SPECIAL SIX WEEK COURSES

June 11-July 24

THE COURSES LISTED IN THIS SECTION RUN FOR SIX WEEKS ONLY. STUDENTS REGISTERING FOR THE COURSES BELOW FOLLOW THE SAME ADMISSION AND REGISTRATION PROCEDURES AS OTHER STUDENTS BUT ARE LIMITED TO A MAXIMUM LOAD OF SIX SEMESTER HOURS.

EDUCATION IN FAMILY FINANCE WORKSHOP. Workshop sponsored by Committee on Education in Family Finance, the College of Education, and the College of Business Administration. EDS. 604 and EDS. 641 must be taken concurrently.

EDUCATION—SECONDARY

EDS. 604.—Curriculum Development Laboratory. 3 credits.
12:50-3:00 Daily BRO East Recreation Room LOYD, J. W. and WILMOT, W. E.

Guided experiences in developing resource units for teaching and the writing of courses of study.

EDS. 641.—Economic Education in the Secondary School. 3 credits.
8:10-11:30 Daily BRO East Recreation Room LOYD, J. W. and WILMOT, W. E.

Study and development of economic materials for better teaching of economic understandings in the elementary and secondary schools.

SCHEDULE OF COURSES SUMMER SESSION 1959

June 11-August 9

MINIMUM SIZE OF CLASSES

No undergraduate class or section will be continued or offered if, at the end of the regular registration period, prior to the day classes begin for a term or semester, the registration does not meet the following minimum requirements.

For Freshmen and Sophomore classes or sections (the comprehensive courses and courses numbered in the 100's and 200's) the minimum is 12 registrations.

For Junior classes or sections (courses numbered in the 300's) the minimum is 8 registrations.

For Senior classes or sections (courses numbered in the 400's and 500's) the minimum is 6 registrations.

ABBREVIATIONS

The following abbreviations have been used to designate buildings:

ADM	ADMINISTRATION BUILDING
AE	BUILDING AE (Family Life)
AGE	AGRICULTURAL ENGINEERING BUILDING
ALA	AGRONOMY LABORATORY
AND	ANDERSON HALL
B	BUILDING B
BNX	BENTON ANNEX
BEN	BENTON HALL
C	BUILDING C (Art)
CRL	CANCER RESEARCH LABORATORY
CIL	CITRUS LABORATORY
DAL	DAIRY LABORATORY
E	BUILDING E
ENG	ENGINEERING AND INDUSTRIES BUILDING
F	BUILDING F
FLI	FLINT HALL
FLG	FLORIDA GYMNASIUM
FLO	FLOYD HALL
FML	FARM MACHINE LABORATORY
HGH	HORTICULTURE GREENHOUSE
I	BUILDING I (Classrooms)
J	BUILDING J (Biology Laboratory)
K	BUILDING K
MSB	MEDICAL SCIENCES BUILDING
MIL	MILITARY BUILDING
MPL	MEAT PRODUCTS LABORATORY
N	BUILDING N (Engineering Classrooms and Laboratories)
NEW	NEWELL HALL
NEA	NEWELL ANNEX
NRN	NORMAN HALL
NUL	NUTRITION LABORATORY
OD	OFFICE D
OE	OFFICE E
OF	OFFICE F
PEA	PEABODY HALL
PEC	PEST CONTROL BUILDING
PHY	PHYSICS LABORATORY
POL	POULTRY LABORATORY
R	BUILDING R (Music)
RLA	REED LABORATORY
ROL	ROLFS HALL
SEA	SEAGLE BUILDING
SAL	PHELPS SANITARY LABORATORY
STA	STADIUM
TUL	TUNG LABORATORY
U	BUILDING U (Architecture and Art)
UAN	FLORIDA UNION ANNEX
VEL	VEGETABLE PROCESSING LABORATORY

L	BUILDING L	VFH	VEGETABLE FIELD HOUSE
LAW	LAW BUILDING	WAL	WALKER HALL
LEI	LEIGH HALL	WGY	WOMEN'S GYM
LIB	LIBRARY	WPL	WOOD PRODUCTS LABORATORY
LSP	LIVESTOCK PAVILION		
MCC	DAN McCARTY HALL	X	BUILDING X
MAT	MATHERLY HALL	YON	YONGE BUILDING

C-1

C-11.—American Institutions. 4 credits.
(Register for the lecture and one discussion section.)
Lecture Section 11: 10:30 TTh WAL AUD
Discussion Sections:
Section 101 7:00 Daily PEA 1
Section 102 8:10 Daily PEA 1
Section 103 9:20 Daily PEA 1

C-12.—American Institutions. 4 credits.
(Register for the lecture and one discussion section.)
Lecture Section 21: 10:30 MW WAL AUD
Discussion Sections:
Section 201 7:00 Daily PEA 2
Section 202 8:10 Daily PEA 2
Section 203 9:20 Daily PEA 2

C-11 & 12: The course is designed to develop insight into the interrelated problems of present American institutions. The historical bases of our evolving institutions are demonstrated in technology, economic life, government, family life, and in religion. Such a study is undertaken to show the effect upon values resulting from the tensions existing between the individual and his social institutions, and to suggest ways of achieving a greater degree of individual and collective social adjustment.

C-2

C-21.—The Physical Sciences. 3 credits.
(Register for the Lecture Section and one Discussion Section.)
Lecture Section 11: 2:00 M W BEN 203
Discussion Sections:
Section 101 8:10 Daily BEN 201
Section 102 9:20 Daily BEN 201
Section 103 10:30 Daily BEN 201

C-22.—The Physical Sciences. 3 credits.
(Register for one section only.)
Section 201 8:10 Daily BEN 205
Section 202 9:20 Daily BEN 205
Section 203 8:10 Daily BEN 203

C-21-22: The primary aim of the course is to give the student a working knowledge, through the solution of numerous problems, of the physical factors in the environment which affect the development of civilization, with its various cultures. These factors are primarily space relations, weather and climate, landforms, and material and energy resources. The concepts are taken from the fields of astronomy, physical geography, meteorology and climatology, geology, chemistry, and physics.

C-3

C-31.—Reading, Speaking, and Writing: Freshman English. 4 credits.
(Register for one Discussion Section and one Laboratory Section.)

Discussion Sections:

Section 101	7:00 Daily	AND 20
Section 102	8:10 Daily	AND 20
Section 103	8:10 Daily	MAT 4
Section 104	9:20 Daily	AND 20
Section 105	11:40 Daily	MAT 6
Section 106	11:40 Daily	AND 20

Writing Laboratory Sections:

Section 301	7:00 M W F	AND 203
Section 302	9:20 M W F	AND 203
Section 303	11:40 M W F	AND 203
Section 304	2:00 M W F	AND 203

C-32.—Reading, Speaking, and Writing: Freshman English. 4 credits.
(Register for one Discussion Section and one Laboratory Section)

Discussion Sections:

Section 201	8:10 Daily	MAT 6
Section 202	9:20 Daily	MAT 6
Section 203	9:20 Daily	MAT 4
Section 204	11:40 Daily	MAT 4

Writing Laboratory Sections:

Section 401	8:10 M W F	AND 203
Section 402	9:20 M W F	AND 209
Section 403	12:50 M W F	AND 203

C-31-32: Reading, Speaking, and Writing. Designed to furnish the training in reading, speaking, and writing necessary for the student's work in college and for his life thereafter. This training will be provided through practice and counsel in oral reading, in silent reading, in logical thinking, in fundamentals of form and style, in extension of vocabulary and in control of the body and voice in speaking. Students will be encouraged to read widely as a means of broadening their interests and increasing their understanding of literature.

EH. 133.—Effective Writing. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.

2:00 Daily D 120
3:10 W

Designed to aid the student to present his ideas in writing which is not only accurate and clear but pleasing and attractive to the reader. Qualified students are encouraged to do imaginative writing.

EH. 134.—Contemporary Reading. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.

10:30 Daily AND 20

Designed to aid the student in planning for himself a well-rounded program in reading, which will serve to keep him abreast of the best in contemporary thought. Some time will be spent in introducing each student to the bibliography and writing in the area of his special professional interest.

C-41

C-41.—Practical Logic. 3 credits.
(Register for one section only.)

Section 1 8:10 Daily ADM 207
Section 2 9:20 Daily ADM 207
Section 3 10:30 Daily ADM 207
Section 4 11:40 Daily ADM 207

This course attempts to improve the student's thinking skills in at least five ways. It attempts to train the student to detect and resist common devices of persuasion used in propaganda and advertising, to avoid certain common errors in reasoning, to reason accurately from principles, to apply the methods of science to everyday problems, and to gain an understanding of and a measure of control over emotional and other psychological factors in thinking. Copious examples of reasoning, both sound and unsound, are examined.

C-42

C-42.—Fundamental Mathematics. 3 credits.

(Register for one section only.)
Section 1 8:10 Daily PEA 7
Section 2 9:20 Daily PEA 7
Section 3 10:30 Daily PEA 7
Section 4 11:40 Daily PEA 7

A practical elementary course consisting of the subject matter considered most useful for students who do not plan necessarily to specialize in mathematics. It covers the development of the number system, computation with approximate and exact numbers, algebra as a generalization of arithmetic, practical geometry, functional relationships, logarithms, the simple trigonometry of the triangle, simple and compound interest, and annuities. Not open to students who have completed Basic Mathematics.

C-5

C-51.—The Humanities. 4 credits.
(Register for the Lecture Section and one Discussion Section.)
Lecture Section 11: 11:40 M W WALKER AUD
Discussion Sections:
Section 101 7:00 Daily AND 115
Section 102 8:10 Daily AND 115
Section 103 9:20 Daily AND 115
Section 104 10:30 Daily AND 115
Section 105 8:10 Daily AND 113
Section 106 9:20 Daily AND 113
Section 107 10:30 Daily AND 113
Section 108 9:20 Daily AND 110

C-52.—The Humanities. 4 credits.
(Register for the Lecture Section and one Discussion Section.)
Lecture Section 21: 11:40 T Th WALKER AUD
Discussion Sections
Section 201 7:00 Daily AND 112
Section 202 8:10 Daily AND 112
Section 203 9:20 Daily AND 112
Section 204 10:30 Daily AND 112
Section 205 8:10 Daily AND 110
Section 207 10:30 Daily AND 110

A course designed to acquaint the student with the great literature, philosophy, art and music in Western civilization. Both our cultural heritage and the culture of our own day are studied. Major emphasis is placed upon mature understanding, enlarged appreciation, and a philosophy of life adequate for the needs of our age.

C-6

C-61.—Biological Sciences. 3 credits.
(Register for one section only.)
Section 101 7:00 Daily FLI 110
Section 102 8:10 Daily FLI 110
Section 103 9:20 Daily FLI 110
Section 104 10:30 Daily FLI 110
Section 105 11:40 Daily FLI 110

C-62.—Biological Sciences. 3 credits.
(Register for one section only.)
Section 201 7:00 Daily FLI 112
Section 202 8:10 Daily FLI 112
Section 203 9:20 Daily FLI 112
Section 204 10:30 Daily FLI 112
Section 205 11:40 Daily FLI 112

A course designed to develop: (1) an understanding of an interest in the nature of organisms through a study of important basic biological concepts illustrated and supported by a suitable, carefully limited, selection of examples; (2) an appreciation of the contributions of the biological sciences to man's understanding of the world he lives in, his material progress and his appreciation of the order, harmony and beauty of the world.

ACCOUNTING

ATG. 211.—Elementary Accounting. 3 credits.
(Register for one section only.)
Section 1. 8:10 Daily MAT 225 STERLING, R. R.
Section 2. 10:30 Daily MAT 224 BROWN, J. E.

Basic training in accounting as a device for measuring business activity. Study of the assumptions underlying accounting and the materials necessary for recording and reporting transactions; preparation and interpretation of financial and operating statements.

ATG. 212.—Elementary Accounting. 3 credits. Prerequisite: Atg. 211.
(Register for one section only.)
Section 1. 8:10 Daily MAT 16 ALMEIDA, J. S.
Section 2. 9:20 Daily MAT 16 CARSON, M.

Accounting for different equity structures and for cost reporting and control. Intensive analysis of reports and statements.

ATG. 311.—Intermediate Accounting. 3 credits. Prerequisite: Atg. 212.
9:20 Daily MAT 119 RAY, D. D.

A study of the assumptions underlying income determination and the theories of matching costs with revenue. Asset acquisition valuation and expiration.

ATG. 312.—Intermediate Accounting. 3 credits. Prerequisite: Atg. 311.
11:40 Daily MAT 119 BENNINGER, L. J.

Accounting problems resulting from the corporate form of organization. Special problems of analysis including those that arise as the result of rapidly changing price levels.

ATG. 313.—Industrial Accounting. 3 credits. Prerequisite: Atg. 212.
10:30 Daily MAT 225 ALMEIDA, J. S.

Emphasis on interpretation and control of costs. Introduction to various systems of cost accumulation and organization for analysis and control. Standards and simple variance analysis.

ATG. 411.—Advanced Accounting. 3 credits. Prerequisite: Atg. 312.
11:40 Daily MAT 225 STERLING, R. R.

Special topics in income determination and correction, compound interest, annuities, and insurance contracts. Equity aspects of accounting for partnerships and estates.

ATG. 412.—Auditing. 3 credits. Prerequisite: Atg. 312.
9:20 Daily MAT 225 BENNINGER, L. J.

Professional ethics, legal responsibilities, and auditing standards. Auditors' objectives, working papers, procedures, and reports.

ATG. 414.—Income Tax Accounting. 3 credits. Prerequisite: Atg. 311.
10:30 Daily MAT 16 DEINZER, H. T.

A study of the federal income tax law and related accounting problems. Determination of gross income and deductions. Practice in the preparation of returns for individuals, corporations, and partnerships, and in the use of the loose-leaf income tax service.

ATG. 415.—Corporate Accounting. 3 credits. Prerequisite: Atg. 411.
8:10 Daily MAT 224 RAY, D. D.

Corporate accounting problems in the area of consolidation, reorganization, quasi-reorganization, mergers and voluntary and involuntary liquidations.

GRADUATE COURSES

ATG. 611.—Accounting Theory. 3 credits. Prerequisite: Atg. 411.
9:20 Daily MAT 224 LANHAM, J. S.

Intensive study of accounting objectives with reference to the measurement of enterprise performance.

ATG. 614.—Research in Income Tax Accounting. 3 credits. Prerequisite: Atg. 414.
11:40 Daily MAT 16 DEINZER, H. T.

Individual initiative and cooperative effort in the study of income tax accounting. Relationships between tax accounting and business income accounting generally. Position of the accountant in tax practice. Original research in the application of income tax standards.

ATG. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

Directed research and writing for the M.A. degree. Taken toward the end of the student's graduate program for credit in addition to the basic 24 hours required for the Master's degree.

ATG. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

Directed research and writing for the Ph.D. requirement. Taken toward the end of the student's graduate program for credit in addition to the hours of regular courses required by the candidate's supervisory committee for the Doctor's degree. (The Doctor's degree in the College of Business Administration requires a major study in economics. However, with the approval of the student's supervisory committee the subject of the dissertation may be in the field of accounting.)

AGRICULTURAL CHEMISTRY

GRADUATE COURSE

ACY. 699.— Research and Master's Thesis. 0-6 credits.*
To arrange.

AGRICULTURAL ECONOMICS

AS. 201—Principles of Agricultural Economics. 3 credits.
8:10 Daily MCC 44 GREENMAN, J. R.

An introduction to the field of agricultural economics; principles of economics as applied to agriculture; economic problems of the agricultural industry and the individual farmer.

*Credit assigned must be shown on course assignment card.

AS. 304.—Farm Finance and Appraisal. 3 credits.
8:10 Daily MCC 37 CLARK, H. B.

Volume, sources and uses of agricultural credit in Florida and the United States. The principles of credit and problems peculiar to financing farmers and farmers' associations. One field trip usually required.

AS. 306.—Farm Management. 3 credits.
10:30 Daily MCC 37 CLARK, H. B.

Not open to freshmen. Introduction to the principles of farm management. Types of farming in Florida and the United States, and factors which determine types of farming. The causes of success and failure of farms and farmers. Problems of labor, machinery, layout of farms, farm reorganization, and such.

AS. 308.—Marketing. 3 credits.
9:20 Daily MCC 44 McPHERSON, W. K.

Basic principles of marketing with emphasis placed on market functions, services, and organizations; elementary theory of demand and prices; commodity exchanges and future trading; transportation; grades and standards; market news; methods of increasing efficiency of markets; the role of co-ops and government in marketing. One field trip required.

AS. 413.—Agricultural Policy. 3 credits.
10:30 Daily MCC 44 GREENMAN, J. R.

A history of farmer attempts and accomplishments through organization and legislation to improve the economic and social status of agriculture. The basic problems and concepts involved in developing and carrying out an agricultural policy. Evaluation of present legislative programs and policies affecting the farmer.

COURSE FOR ADVANCED UNDERGRADUATES AND GRADUATES

AS. 501.—Research Problems in Land Economics. 3 credits.
To arrange.

Prerequisite: consent of instructor. Economic problems created by the continually changing uses of land resources, i.e., water, soil, timber, climate, situs, will be studied. Each student will select a problem, outline and conduct research on that problem and prepare a written report. Students majoring in other departments will be encouraged to select problems that will help them evaluate economic and social impact of the progress being made in other fields of learning on the natural resource base, i.e., animal husbandry, agronomy, soils, forestry, community planning, Latin American programs, etc.

GRADUATE COURSES

AS. 605.—Research Problems in Farm Management. 3 credits.
To arrange.

Designed to train students in collecting, analyzing and presenting data on problems in the field of farm management. Special problems of interest to the individual student and agreeable with the instructor are selected for study. A statement of the problem is prepared, research work studied, publications reviewed and written reports developed.

AS. 611.—Research Problems in Marketing Agricultural Products. 3 credits.
To arrange.

Individual examinations of segments of the marketing system for Florida products. Emphasis may be placed on efficiency, market organization, trading arrangements, historical development or other aspects of the problem of interest to the student and agreeable with the instructor. A comprehensive report on the investigations and conclusions of the student is required.

AS. 628.—Problems in Statistics. 1-3 credits.*
To arrange. Identical with AY. 628.

Prerequisite: A graduate course in statistics. Special problems in statistics, in the areas of research methods, sampling methods, experimental design, theory of sampling and theory of experimental designs.

AS. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

*Credit assigned must be shown on course assignment card.

AS. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange.

AGRICULTURAL ENGINEERING

Ag. 306.—Farm Machinery. 3 credits.
8:10 M T W Th AGE 15 RICHARDSON, J. B.
Laboratory: 2:00 to 4:10 T AGE 17

The functional requirements, design, and selection of farm machinery.

AG. 401.—Farm Structures. 3 credits.
11:40 M T W Th AGE 15 RICHARDSON, J. B.
Laboratory: 2:00 to 4:10 W AGE 103

The functional requirements, design, and construction of farm buildings.

GRADUATE COURSES

AG. 670.—Research Problems in Agricultural Engineering. 3 credits.
To arrange AGE 9 STAFF

AG. 672.—Research Problems in Farm Machinery and Power. 3 credits.
To arrange AGE 9 STAFF

AGRICULTURAL EXTENSION

AXT. 421.—Problems in Agricultural Extension Methods. Variable credit.*
Prerequisite: Consent of Instructor.
To arrange. MCC 209 SENN, P. H. and STAFF

Problems from various fields of Agricultural Extension Work.

GRADUATE COURSE

AXT. 621.—Research in Agricultural Extension. Variable credit.*
Prerequisite: Consent of Instructor.
Section 2 To arrange MCC 209 SENN, P. H. and STAFF

Library and workshop relating to Agricultural Extension Methods. Research work is studied, publications reviewed and written reports developed.

AGRONOMY

AY. 329.—Genetics. 3 credits.
8:10 Daily MCC 5 LINDEN, D. B.

The fundamentals of inheritance, emphasizing the application of Genetics and its associated branches of science in the improvement of economic plants and animals and in programs of human betterment.

AY. 426.—Individual Problems in Agronomy. Variable credit.
To arrange MCC 207 RODGERS, E. G.

Individual problems selected from the fields of crop production or weed control.

AY. 436.—Pastures. 3 credits.
10:30 M T W Th MCC 204 RUELKE, O. C.
Laboratory 12:50-3:00 W MCC 204 RUELKE, O. C.

The development and management of grazing areas of the United States, with particular reference to Florida conditions. Importance of pastures in present day agriculture and management for greater economic returns.

*Credit assigned must be shown on Course Assignment Card.

GRADUATE COURSES

AY. 626.—Agronomic Problems. 3 credits.
To arrange MCC 209 SENN, P. H.

Library, laboratory and field studies which relate to crop production and improvement. Experiments are studied, publications reviewed and written reports developed.

AY. 651.—Design of Experiments. 3 credits. Prerequisite: AY. 650 or consent of instructor.
9:20 Daily MCC 215 ASH, W. O.

Completely randomized, randomized complete block, Latin square, split plot, and factorials. Point and interval estimation and tests of significance. Orthogonal comparisons, multiple comparisons, missing plot estimation and variance components. Applications to problems in research.

AY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange MCC 209 SENN, P. H.

AY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange MCC 209 SENN, P. H.

ANIMAL HUSBANDRY AND NUTRITION

AL. 309.—General Animal Husbandry. 3 credits.
7:00 Daily MCC 44 WAKEMAN, D. L.

Types and breeds of farm animals; market classification; selection and management.

GRADUATE COURSES

AL. 601.—Special Topics in Animal Science. 3 credits.
Section 2 To Arrange STAFF

Reviews and discussions of scientific literature in the field of Animal Science.

AL. 609.—Problems in Animal Husbandry and Nutrition. Variable credit.*
To arrange STAFF

AL. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange STAFF

AL. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange STAFF

ARCHITECTURE

AE. 112.—Graphic Techniques II. 2 credits.
12:50-4:10 M W E 116
12:50-3:00 F

Exercises in freehand and instrumental drawing.

AE. 121.—The Building Arts I. 2 credits.
8:10 M T W Th F E 102

A survey of the building arts with emphasis on the social factors that govern them.

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*Credit assigned must be shown on Course Assignment Card.

AE. 122.—The Building Arts II. 2 credits.
9:20 M W F E 102
Laboratory: 12:50-4:10 T Th E 116

A survey of the building arts with emphasis on the physical and psychological factors that influence them.

AE. 211.—Visual Expression I. 2 credits.
8:10-11:30 M W E 126
8:10-10:20 F

The representation of spatial relationships using various appropriate media and techniques with emphasis on the development of interpretative skills.

AE. 212.—Visual Expression II. 2 credits.
12:50-4:10 M W E 179
12:50-3:00 F

Continuation of AE 211 with advanced analysis of media, techniques and composition.

AE. 231.—Elementary Architectural Design I. 3 credits.
2:00-4:10 M W E 126
12:50-4:10 T Th F

A study of the basic elements and principles of two and three-dimensional design, in conjunction with basic architectural problems.

AE. 232.—Elementary Architectural Design II. 3 credits.
8:10-11:30 M W F E 179
8:10-10:20 T Th

Continuation of Elementary Architectural Design AE 231.

AE. 241.—Materials and Methods of Construction I. 2 credits.
12:50 M W E 102
Laboratory: 8:10-11:30 T Th E 126

Types and general properties of building materials, elements of building construction: types of construction, systems, fire-loss prevention and building codes.

AE. 242.—Materials and Methods of Construction II. 2 credits.
9:20 T Th E 102
Laboratory: 12:50-4:10 T Th E 179

Types, properties and design of the construction frames of buildings.

ART

ART. 101.—Beginning Design. 2 credits.
7:00-9:10 Daily X 1 MC INTOSH, P. R.

Fundamental principles of visual organization. Emphasis upon two-dimensional design in black and white.

ART. 102.—Beginning Design. 2 credits. Prerequisite: ART 101 or consent of Instructor.
9:20-12:40 T Th and 2 hours to arrange X 4 CHAPMAN, A.

Continuation of ART 101. Emphasis upon design in three-dimensions. Projects in construction, modeling and carving in a variety of materials.

ART. 103.—Beginning Drawing and Painting. 2 credits.
9:20-12:40 M W F C 101 Covington, H. W.

Exploration of the drawing media. Drawing as a means of formal organization. Study of still-life, figure and landscape.

ART. 206.—Intermediate Drawing and Painting. 2 credits. Prerequisite: ART 104 or consent of instructor.
10:30-12:40 M T W Th X 1 MC INTOSH, P. R.

Pictorial composition. Relationship of subject matter to pictorial form and content. Painting in gouache and casein.

ART. 207.—Introduction to the Principles and History of Art. 3 credits.
8:10 Daily X 14 SPENCER, J. R.

Principles of art. Relation of styles to cultural context. Survey of ancient and medieval art and architecture.

ART. 260.—Lettering. 3 credits.
7:00-9:10 M W F and 2:00-4:10 M W C 103 COVINGTON, H. W.

Principles of design and use of letter forms. Study of historic designs and styles. Development of skills of execution.

ART. 341.—Photography. 3 credits. Prerequisite: ART 101 or consent of instructor.
10:30-12:40 Daily X 14

Fundamentals of photography. Operation of the camera. Developing, printing, enlarging. Principles of design in photography. Applications of photography in the field of photo-journalism.

ART. 352.—Painting II. 3 credits. Prerequisite: ART 206 or consent of instructor.
10:30-12:40 Daily X 1 MC INTOSH, P. R.

Technical and creative problems. Continued emphasis upon pictorial organization. Work in watercolor, casein, gouache and/or polymer tempera.

ART. 383.—Jewelry and Metalwork, I. 3 credits. Prerequisite: ART 102 or consent of Instructor.
7:00-9:10 a.m. T Th and 7:00-10:00 p.m. T Th X2 CHAPMAN, A.

Basic processes in jewelry and metalwork. Work in silver, copper and other materials. Enameling on metal.

ART. 425.—Baroque Art in Europe. 3 credits. Prerequisite: ART 207-208 or consent of Instructor.
9:20 Daily X 14 SPENCER, J. R.

European art and architecture in the seventeenth and eighteenth centuries. Emphasis upon painting and sculpture.

ART. 551.—Individual Work: Studio. 3 or 6 credits. Prerequisite: A major in art or permission of the department head.
To arrange STAFF

ASTRONOMY

ATY. 141.—Descriptive Astronomy. 3 credits. Not open to students who have had any other course in astronomy.
8:10 Daily WAL 213

An elementary survey of the astronomical universe. Primarily intended as an elective for those not majoring in a physical science or mathematics.

BACTERIOLOGY

BCY. 300.—Bacteria in Everyday Life. 3 credits. Prerequisite: C-61 or equivalent.
12:50 M T W Th MCC 166 CARROLL, W. R. and PRATT, D. B.
Laboratory 2:00 to 4:10 T Th MCC 167

Bacteria in relation to evolution, higher plants and animals, and particularly man. Their functions in the cycle of chemical transformations, in food production, in desease, and in general sanitation. The related activities of some yeasts and molds, and of the filterable disease agents. A terminal course, not acceptable for admission to advanced courses in bacteriology. Available for minor credit to graduate students in non-science curricula only.

GRADUATE COURSES

BCY. 600.—Public Health Microbiology. Variable credit.*
To arrange Jacksonville** BUREAU OF LABORATORIES STAFF

Principles and methods in diagnostic public health micro-biology.

BCY. 699.—Research and Master's Thesis. 0-6 credits.*

BCY. 799.—Research and Doctoral Dissertation. 1-6 credits.*

BIOLOGY

BLY. 181.—General Zoology. 4 credits.
Lecture Section: 10:30 M T W Th FLI 101 WALLBRUNN, H. M.
Laboratory Section: 12:50 to 3:00 M T W Th FLI 2

An introductory course dealing with protoplasm, animal cells, the structure, functioning, embryology, and evolutionary relationships of representatives of the major animal phyla.

BLY. 300 and BLY. 301 are offered as a part of the National Science Foundation sponsored Summer Institute and both must be taken concurrently. Enrollment will not be limited, however, to participants in the Institute. Other students will be accepted in so far as space and equipment permit.

BLY. 300.—Common Animals and Plants of Florida. 3 credits.
Prerequisite C-6
Students registering for BLY. 300 must also register for BLY. 301
Lecture Section: 8:10 M T W Th FLI 101 JONES, E. R.
Laboratory Section: 1:00 to 3:30 M W F J 101

Designed to provide a recognition of and an acquaintance with some of the more common animals and plants in Florida. Individual work in the field and the making of a personal reference collection of plant and animals is encouraged.

BLY. 301.—Biological Laboratory Technique for Teachers. 3 credits.
Prerequisite C-6
Students registering for BLY. 301 must also register for BLY. 300.
Lecture Section: 9:20 Daily FLY 101. GRIFFITH, M. M.
Laboratory Section: 1:00 to 3:30 T Th J 101

Designed to provide prospective instructors at the high school level with a sound background in biology and information regarding methods of preparation of material and sources of supply for the high school course.

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*Credit assigned must be shown on Course Assignment Card.
**Course given at Bureau of Laboratories, State Board of Health, Jacksonville.

BLY. 630.—Individual Studies in Animal Biology. 3 credits.
Prerequisite: Graduate status and consent of the instructor.
To Arrange STAFF

Studies may be chosen from one or more aspects of the following fields: comparative anatomy, cytology, ecology, embryology, experimental biology, fresh water biology, game management, genetics, herpetology, histology, ichthyology, invertebrate zoology, including arachnology and insect biology, limnology, malacology, mammalogy, marine biology, ornithology, parasitology, general or comparative physiology, protozoology, vertebrate paleozoology, and zoogeography. BLY. 630 may be elected for additional credit in subsequent semesters.

BLY. 699.—Research and Master's Thesis. 0 to 6 credits.*

BLY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

BOTANY

BTY. 102.—General Botany. 3 credits. Prerequisite: BTY. 101 or equivalent.
8:10 M T W Th MCC 2 FORD, E. S.
Laboratory: 12:50-3:00 T Th MCC 306

Representatives of major groups of plants regarding their classification, life histories and environmental relations.

BTY. 300.—The Plant World. 3 credits. Prerequisite: C-6 or BTY. 101.
Students with more than one year of biology or botany should consult with instructor before registration.
9:20 M T W Th MCC 5 NOGGLE, G. R.
Laboratory: 12:50-4:10 W MCC 317

The origin, distribution and uses of plants, particularly from the standpoint of their relationship to man and earth features.

GRADUATE COURSE

BTY. 600.—Problems in Botany. 1-4 credits.*
To arrange.

Problems in one or more of the fields of botany, taxonomy, morphology, and plant physiology, depending on the qualifications of the students.

BTY. 699.—Research and Master's Thesis. 0-6 credits.*

BUILDING CONSTRUCTION

BCN. 204.—History of Building. 3 credits.
Daily To arrange K-103

The historic details, and the design and construction problems having reference to the various eras as they are studied.

BCN. 205.—Basic Studies of Materials. 3 credits.
Prerequisite: Sophomore standing.
Daily To arrange K 103

Nature of construction materials by source classification, trade names, and their general physical and chemical properties.

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*Credit assigned must be shown on course assignment card.

BCN. 206.—Construction Mechanics. 3 credits.
Prerequisite: MS 106 and PS 201
Daily To arrange K 103

The study of loads, shear, bearing, bending moments, and the resolution of forces into components and/or resultants as applied in the design of structures. The study of stress, strain, moment of inertia, centroid, section modulus, radius of gyration, and kern. Simple beam and column design.

BCN. 413-414-415.—Courses in Building Construction. 2 credits each, total 6 credits. Prerequisite: RE 291, BCN 401, 402, 403, 404, 405, 411, 412.
Daily To arrange K 105

NOTE: A limited amount of remedial work will be offered to permit makeup in courses failed during the regular semester, and to permit graduation in special cases.

Registrations will be permitted only upon securing the written approval of the Head of the Department.

GRADUATE COURSES

BCN. 602.—Building Construction. 3 or 6 credits.
To arrange K 105

The second half of the course BCN-601-602. Advanced studies in building technology or in specialized areas of the building construction field selected by the student and approved by the faculty.

BCN. 603.—Building Research. 3 or 6 credits.
Prerequisite: Bachelor's degree in Building Construction or equivalent.
To arrange K 105

The first half of the course BCN. 603-604. Detailed investigation of a selected problem in the building construction field designed to make a significant contribution to present knowledge and practices in that field.

BCN. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange K 105

For Students working for the Master's degree. Credits cannot be used to reduce the total course work required for the degree.

BUSINESS ADMINISTRATION—GENERAL

BS. 664.—Managerial Statistics. 3 credits.
8:10 Daily MAT 115 diROCCAFERRERA, G. M.

A course designed to prepare the future executive to utilize statistical methods in decision making. Emphasizes statistical inference as an approach to solving business problems.

BS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

BUSINESS EDUCATION

BEN. 81.—Introductory Typewriting. 2 credits.
8:10 Daily and 2 hours to arrange NRN 306 BARTOSZEK, F.

Skill in typewriting developed through practice on personal and business problems.

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*Credit assigned must be shown on course assignment card.

BEN. 91.—Introductory Shorthand. 3 credits.
9:20 Daily and 2 hours to arrange NRN 305 BARTOSZEK, F.

The theory of Gregg Shorthand is completed, using the functional method.

BEN. 181.—Advanced Typewriting. 2 credits. Prerequisite: BEN. 81 or BEN 82 or permission of department.
10:30 Daily and 2 hours to arrange NRN 306 BARTOSZEK, F.

Provides more intensive training in typewriting.

BEN. 191.—Shorthand Dictation. 3 credits. Prerequisite: BEN. 91 or BEN. 92 or permission of department.
11:40 Daily and 2 hours to arrange NRN 305

Dictation developed: emphasis on speed, accuracy, and shorthand skills.

BEN. 291.—Shorthand Dictation and Transcription. 3 credits. Prerequisites: BEN. 181 and 191, or permission of department.
2:00 Daily and 4 hours to arrange NRN 306

Dictation and transcription are emphasized.

CHEMICAL ENGINEERING

CG. 347.—Industrial Stoichiometry. 3 credits. Prerequisite or Corequisite: CY. 331, MS. 353, PS. 205.
10:30 Daily MIL 25
Discussion: 2:00 to 4:10 F MIL 25

Industrial processes and calculations, weight balances, gas calculations, combustion processes, vapor pressure, humidity, etc.

CG. 356.—Principles of Chemical Engineering II. 3 credits. Prerequisite: CG. 355.
9:20 Daily MIL 25

The fundamental chemical engineering operations: Flow of fluids, heat transfer, evaporation, humidity and air conditioning, and drying.

CG. 361.—Materials of Engineering. 3 credits. Prerequisite: CY. 218.
10:30 Daily ENG 512

Production, properties, and uses of ferrous and non-ferrous metals and alloys, Portland cement, clay products, wood and plastics.

CG. 364.—Chemical Engineering Thermodynamics I. 3 credits. Prerequisite: MS. 354. Corequisites: CY. 402, CG. 356.
8:10 Daily MIL 25

The first two laws of thermodynamics and their application to Chemical Engineering.

GRADUATE COURSES

CG. 641.—Heat Transmission. 3 credits.
7:00 Daily MIL 25

The extension of elementary principles to more advanced problems in steady and unsteady heat flow to fluids and solids.

CG. 699.—Research and Master's Thesis. 0 to 6 credits.*

CG. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

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*Credit assigned must be shown on Course Assignment Card.

CHEMISTRY

CY. 121.—General Chemistry. 4 credits.
9:20 Daily LEI 212 STEARNS, T. W.
Laboratory: 12:50-4:10 M W LEI 138

Fundamental laws and theories of chemistry. Non-metallic elements and their compounds; metals and their compounds and some of their uses.

CY. 122.—General Chemistry. 4 credits.
7:00 Daily LEI 207
Laboratory: 12:50-4:10 T Th LEI 138

The second half of the course CY. 121-122.

CY. 123.—Qualitative Analysis. 3 credits. Prerequisite: CY. 122.
10:30 M T Th F LEI 207 STOUFER, R. C.
Laboratory: 12:50-4:10 T Th LEI 236

Theoretical principles and laboratory techniques involved in the qualitative detection of the common metals and acid radicals.

CY. 217.—General Chemistry and Qualitative Analysis. 4 credits.
Prerequisites: Upper percentile rating in placement tests in physical sciences and mathematics or satisfactory completion of C-2. In general, freshman should present evidence that they have had high school chemistry. Prerequisite or corequisite: MS. 105.
8:10 Daily LEI 212 HANRAHAN, R. J.
Laboratory: 12:50-4:10 T Th LEI 136

Principles of chemistry; the descriptive chemistry of familiar elements and inorganic compounds from a structural point of view; an introduction to ionic separations and the detection of selected ions.

CY. 218.—General Chemistry and Qualitative Analysis. 4 credits.
10:30 Daily LEI 212
Laboratory: 12:50-4:10 M W LEI 136

CY. 302.—Organic Chemistry. 4 credits.
8:10 Daily LEI 154 JONES, W. M.
Laboratory: 12:50-4:10 T Th LEI 238

CY. 331.—Introductory Quantitative Analysis. 4 credits. Prerequisite: CY. 123 or CY. 218.
8:10 M T W Th LEI 142 PEARCE, J. M.
Laboratory: 12:50-4:10 M T W Th LEI 112

Theoretical principles and laboratory techniques involved in quantitative determinations. Determinations include gravimetry, acidimetry, and alkalimetry, oxidimetry and iodimetry.

***CY. 362.—Organic Chemistry.** 3 credits.
Prerequisite: CY. 122 or CY. 218. Corequisite: CY. 363, except for Physics majors.
9:20 Daily LEI 142 POLLARD, C. B.

A brief elementary course embracing the more important aliphatic and aromatic compounds.

CY. 363.—Organic Chemistry Laboratory. 2 credits. Corequisite: CY. 362.
12:50-4:10 T W Th F LEI 238

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*Credit assigned must be shown on course assignment card.

CY. 400.—Chemistry for Teachers. 6 credits: Prerequisite: 1 year of college chemistry.
8:10-10:30 Daily LEI 207 LIPPINCOTT, W. T.
Laboratory T Th 12:50-4:10 LEI 136

This course is designed primarily for teachers who wish to expand either their background in Chemistry or to refresh themselves with a modern approach. It will consist of a combination of lecture and laboratory work, reviewing fundamentals of Chemistry and stressing recent developments and techniques in the field.

***CY. 402.—Physical Chemistry.** 3 credits. Prerequisite: CY. 401. Corequisite: CY. 406, except for Physics majors.
9:20 Daily LEI 339 HAWKINS, J. E.

Colloids, electricity as applied in chemistry, chemical kinetics, photochemistry and introduction to quantum theory.

CY. 406.—Physical Chemistry. 1 credit. Corequisite: CY. 402.
12:50-4:10 T Th LEI 204

GRADUATE COURSES

CY. 615.—Advanced Inorganic Chemistry. 3 credits. Prerequisite: CY. 602
8:10 Daily LEI 339 RYSCHKEWITSCH, G. E.

A systematic study of the non-metals, with emphasis on the relation of properties to atomic, molecular, and crystal structures.

CY. 699.—Research and Master's Thesis. 0 to 6 credits.**

CY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.**

CIVIL ENGINEERING

CL. 223.—Elementary Surveying. 3 credits. Prerequisite: MS 106.
(Register for the Lecture Section and one Laboratory Section)
Lecture Section 8:10 M T W Th ENG 428 WINSOR, A. N.
Laboratory Sections:
Section 11 2:00 to 5:20 M W Eng 320 WINSOR, A. N.
Section 12 2:00 to 5:20 T Th ENG 428 WINSOR, A. N.

Use of surveyors tape; level and transit; traversing and balancing surveys; calculation of areas; topographic mapping; land subdivision; adjustment of instruments.

CL. 326.—Statics of Simple Structures. 4 credits. Prerequisite: EM. 365.
10:30 Daily ENG. 312
Laboratory 2:00 to 5:20 M W ENG 312

Application of the methods of statics to structural analysis; a correlation between graphical and analytical methods; moments; shears; reactions; resultants; stress diagrams, and influence lines for statically determinate structures.

GRADUATE COURSES

CL. 699.—Research and Master's Thesis. 0-6 credits.**

CL. 799.—Research and Doctoral Dissertation. 1 -6 credits.**

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*This lecture course may not be taken without the corresponding laboratory course except by special permission.

**Credit assigned must be shown on course assignment card.

COMMUNICATIONS

COM. 430.—Individual Problems. 3 credits. Prerequisite: At least 15 hours of Communications in the Upper Division, and approval of the Director.
To arrange.

Designed for seniors in their graduating semester. Students and the instructor concerned will choose a problem or project which will give the student actual experience in his major field.

DAIRY SCIENCE

DY. 420.—Problems in Dairy Technology. 3 credits.
To arrange.

Qualified students may choose an approved problem covering some phase of dairy technology.

GRADUATE COURSES

DY. 623.—Problems in Dairy Production. Variable credit.*
To arrange.

Research for majors in dairy husbandry.

DY. 699.—Research and Master's Thesis. 0 to 6 credits.*

ECONOMICS

ES. 201.—Basic Economics. 3 credits.
(Register for one section only.)
Section 1. 7:00 Daily MAT 216 COHEN, A.
Section 2. 11:40 Daily MAT 102 WEBB, J. N.

After a preliminary discussion of the nature of economics and economic concepts and institutions, this half of the course, ES. 201-202, emphasizes the accounting, analytical, and policy aspects of national income and product, along with such closely related topics as governmental finance, money and banking, and international trade and finance.

ES. 202.—Basic Economics. 3 credits.
(Register for one section only.)
Section 1. 8:10 Daily MAT 10 LASSITER, R. L.
Section 2. 10:30 Daily MAT 102 SHIELDS, M. W.

This half of the course in Basic Economics, ES. 201-202, deals primarily with the theories of production, determination of prices and distribution of income in both regulated and unregulated industries. Some attention is also given to the problems of industrial relations, monopolies, and to comparative economic systems.

ES. 203.—Elementary Statistics. 4 credits. Prerequisite: C-42 or equivalent.
10:30 Daily MAT 118 ANDERSON, M. D.
1:00-3:10 T Th MAT 120

The statistical method as a tool for examining and interpreting data; acquaintance with such fundamental techniques as find application in business, economics, biology, agriculture, psychology, sociology, etc.; basic preparation for more extensive work in the field of statistics.

ES. 321.—Money and Banking. 3 credits. Prerequisite: ES. 201.
Section 1. 8:10 Daily MAT 111 SMITH, C. D.
Section 2. 11:40 Daily MAT 112 FRAZER, W. J., JR.

A study of money systems and standards; of the factors determining the size of the money supply with special emphasis on the role of commercial and central banks and government fiscal policy; and of the relationship between money, prices and production and employment.

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*Credit assigned must be shown on course assignment card.

ES. 327.—Public Finance. 3 credits. Prerequisite: ES. 201.
10:30 Daily MAT 108 SMITH, C. D.

Principles governing expenditures of modern government; sources of revenue; public credit; principles and methods of taxation and financial administration as revealed in the fiscal systems of leading countries.

ES. 347.—Principles of Foreign Trade. 3 credits. Prerequisite ES. 201.
11:40 Daily Mat 116 SHIELDS, M. W.

Fundamental principles of foreign trade; significance of geographic economic, social, and political influences; current practices and development in foreign trade; products of international commerce, protective tariffs, and other barriers to world trade; tendencies in the foreign trade of the United States.

ES. 372.—Labor Problems. 3 credits. Prerequisite: ES. 202.
9:20 Daily MAT 111 CARPENTER, T. G.

Labor problems; insecurity, wages and income, hours, sub-standard workers, industrial conflict, attempts to solve labor problems by employers; personnel management, employee representation, employers' associations; attempts to solve labor problems by state; protective labor legislation, laws relating to settlement of industrial disputes.

ES. 407.—Economic Principles and Problems. 3 credits. Prerequisites: ES. 201-202.
10:30 Daily MAT 10 LASSITER, R. L.

An advanced course in economic theory, dealing especially with the theories of production, price, determination, and income distribution and their application to a selected list of current economic problems.

ES. 409.—Comparative Economic Systems. 3 credits.
9:20 Daily MAT 213 KARP, J. R.

The economics of capitalism, socialism, communism, and fascism. The theoretical economics of capitalism, socialism, and communism, and the actual economics of the United States, Soviet Russia, England, Nazi Germany, and Fascist Italy are compared on the basis of such matters as industrial production, agriculture, exchange, credit and banking, income distribution, the status of labor, and international trade. Marxian Socialism is also considered briefly.

ES. 429.—Introduction to Business Cycles. 3 credits. Prerequisite: ES. 321.
8:10 Daily MAT 223 KARP, J. R.

An introduction to the principal theories of the business cycle including also a description of the various types of cycles and an examination of the important remedies that have been proposed.

GRADUATE COURSES

ES. 608.—Present-Day Schools of Economic Thought, Part I. 3 credits.
9:20 Daily MAT 219 WEBB, J. N.

The purpose of this course is to examine the main currents of contemporary American and English economic thinking with particular reference to the developments occurring between the two World Wars. The writings of Hansen, Mitchell, Clark and Commons in the United States, and of Keynes, Cole, Robinson, and Hobson in England will be examined. Continuation of the study initiated in Part I

ES. 677.—Governmental Debt. 3 credits.
To arrange DONOVAN, C. H.

Influences and mechanisms for debt incurrence and retirement by federal, state, and local governments. Problems of debt use and abuse, regulations, area planning, and intergovernmental relations. Emphasizes case studies.

ES. 699.—Research and Thesis. 0 to 6 credits.*
To arrange.

Directed research and writing for the M.A. degree, taken toward the end of the student's graduate program for credit in addition to the 24 hours required for the master's degree.

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*Credit assigned must be shown on course assignment card.

ES. 799.—Research and Dissertation. 1 to 6 credits.*
To arrange.

Directed research and writing for the Ph.D. degree, taken toward the end of the student's graduate program for credit in addition to the hours of regular courses required by the candidate supervisory committee for the doctor's degree.

EDUCATION—GENERAL

ED. 418.—Audio-Visual Materials of Instruction. 3 credits.
8:10 Daily NRN 209 WINSOR, D. L.

A general course for teachers at all grade levels. Presents sources and methods of using audio-visual materials of instruction.

ED. 500.—Student Teaching I. 3 credits. Prerequisite: approval of department head.
To arrange NRN 330 DURRANCE, C. L. & CALLIS, M. A.

Supervised observation, participation, and teaching under the guidance of a selected classroom teacher.

ED. 501.—Student Teaching II. 3 credits. The second half of the course ED. 500. Prerequisite: approval of department head.
To arrange NRN 330 DURRANCE, C. L. & CALLIS, M. A.

GRADUATE COURSES

NOTE: Orientation Meeting for all graduate students in Education, Thursday, June 18, 1959 in Norman Auditorium. This meeting will be devoted to a discussion of policies and programs for graduate students in the College of Education.

ED. 630.—Individual Work. 3 credits.
To arrange NRN 134B WILES, KIMBALL

ED. 640.—College Curriculum and Teaching. 3 credits.
8:10 Daily NRN 114 HENDERSON, L. N.

Development, functions, and problems of colleges in the American society. Emphasis on curriculum, learning process and teaching procedures, instructional aids, and evaluation.

ED. 651.—Audio-Visual Education. 3 credits.
9:20 Daily NRN 209 CATE, C. A.

The selection, evaluation and use of audio-visual materials, with emphasis upon projected still and sound motion pictures.

ED. 652.—Production and Utilization of Audio-Visual Materials. 3 credits. Prerequisite: ED. 651 or consent of instructor.
11:40 Daily NRN 209 WINSOR, D. L.

ED. 653.—Organization & Operation of Materials-of-Instruction Program. 3 credits.
10:30 Daily NRN 209 CATE, C. A.

ED. 659.—Laboratory in Corrective Reading. 6 credits. Prerequisite or corequisite: EDE. 675.
10:30-12:40 Daily AND. 310 STANDLEE, L.

Laboratory experience in the diagnosis, correction and prevention of reading difficulties.

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*Credit assigned must be shown on course assignment card.

ED. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange. NRN 134-B WILES, KIMBALL

ED. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange. NRN 134-B WILES, KIMBALL

EDUCATION—ADMINISTRATION

GRADUATE COURSES

EDA. 600.—Educational Organization and Administration. 3 credits.
Section 1. 8:10 Daily NRN 222 EGGERT, C. L.
Section 3. 10:30 Daily NRN 222 EGGERT, C. L.

EDA. 601.—Organization and Administration of Elementary Schools. 3 credits.
2:00 Daily NRN 222 KIMBROUGH, R. B.

EDA. 602.—Organization and Administration of Secondary Schools. 3 credits.
11:40 Daily NRN 222 KIMBROUGH, R. B.

EDA. 603.—Public School Business Admin. and Finance. 3 credits.
12:50 Daily NRN 222 LEPS, J. M.

EDA. 608.—Administration of Pupil Personnel. 3 credits.
10:30 Daily NRN 201 SIMMONS, G. B.

EDA. 609.—Problems in School Administration and Supervision. 3 credits.
To arrange NRN 220 LEPS, J. M.

EDA. 610.—Organization and Administration of Adult Education. 3 credits.
10:30 Daily NRN 114 HARRISON, J. W.

EDA. 630.—Individual Work. 3 credits.
To arrange NRN 220 LEPS, J. M.

EDA. 631.—Educational Leadership I. 3 credits.
8:10 Daily NRN 214 HASS, C. G.

EDA. 632.—Educational Leadership II. 3 credits.
9:20 Daily NRN 214 HASS, C. G.

EDA. 633.—Methods and Problems of Supervision. 3 credits. Prerequisite: EDA. 631 or ED. 634.
7:00 Daily NRN 138 WILES, KIMBALL

EDUCATION—ELEMENTARY

EDE. 400—Problems of Instruction. 3 credits.
7:00 Daily NRN 201 TISON, J.

The course in elementary curriculum required for certification to teach in grades 1-12 in certain specialized fields.

EDE. 550.—The Teaching of Arithmetic. 3 credits.
10:30 Daily NRN 203 OLSON, W.

The purpose of the course is to help teachers of elementary and junior high schools gain an understanding of arithmetic concepts, symbolism, and teaching materials and procedures.

*Credit assigned must be shown on course assignment card.

EDE. 570.—Teaching of Reading. 3 credits.
Section 1 9:20 Daily NRN 207 HAIMBACH, D.
Section 2 11:40 Daily NRN 207

A comprehensive survey of the problems of teaching reading in all grades and practical procedures for attacking these problems.

EDE. 600.—Elementary School Curriculum. 3 credits.
Section 1 8:10 Daily NRN 201 OLSON, W.
Section 2 10:30 Daily NRN 207 CALLIS, A.

A survey of the content and methods of the elementary school curriculum. Offered primarily for students who have not taken a course in elementary curriculum and who have not had teaching experience in the elementary schools; also the first course in elementary curriculum for students majoring in administration.

EDE. 601.—Practices in Elementary Education I. 3 credits.
Section 1 9:20 Daily NRN 203 AHRENS, M. A.
Section 2 10:30 Daily NRN 201 HAINES, A.

A study of practices in the elementary school in relation to fundamental principles of curriculum development. This is the basic elementary curriculum course for Master's program in Elementary Education.

EDE. 602.—Practices in Elementary Education, II. 3 credits.
Section 2 8:10 Daily NRN 207

Emphasis is placed upon an interdisciplinary approach to problems in social learnings of elementary children.

EDE. 603.—Early Childhood Education I. 3 credits.
11:40 Daily NRN 203

To assist teachers of children of nursery school and kindergarten age.

EDE. 604.—Early Childhood Education, II. 3 credits.
7:00 Daily NRN 203

Problems in working with children in the nursery school and kindergarten.

EDE. 635.—Supervision of Pre-Service Teachers, I. 3 credits. Open to graduate students with certification and background in elementary education, or permission of instructor.
Section 1 8:10 Daily NRN 138 HAINES, A.

Problems and issues of pre-service teacher education, with particular emphasis on procedures of supervising interns.

EDE. 660.—Science Education in the Elementary School. 3 credits. Prerequisite: EDE. 560 or equivalent, or permission of instructor.
11:40 Daily NRN 142 SHECKLES, M.

Current problems in teaching science in elementary schools, new materials and techniques of teaching, recent developments in the sciences and their implications.

EDE. 671.—Language Arts in the Elementary School—Creative Expression. 3 credits.
9:20 Daily NRN 201 CAREY, J.

Emphasis upon literature for young children and the arts related to it. These arts include illustrations, dramatization, puppetry, and other dramatic forms of story telling, creative writing, and evaluation and study of children's books in terms of their interests and needs.

EDE. 675.—Trends in the Teaching of Reading. 3 credits.
8:10 Daily NRN 150 CAREY, J.

Analysis of trends in the teaching of reading as shown in current methods and research. Includes consideration of purposes and aims, skills and attitudes, informal and formal reading tests.

EDE. 703.—Seminar in Elementary Education, II. 3 credits.
1:30-4:30 M W NRN 201 AHRENS, M. A.

Opportunity (a) to make a critical examination of current research, (b) to cooperate with advanced students in other fields of education to provide an over-view of the total program in education and (c) to work cooperatively on special projects. Staff course.

EDUCATION—FOUNDATIONS

EDF. 225.—Social Foundations of Education. 3 credits.
Section 1 9:20 Daily NRN 236 HILL, T.
Section 11:40 Daily NRN 236 HILL, T.

A study of education as a function of the social setting.

EDF. 245.—Human Growth and Development. 3 credits.
Section 1 8:10 Daily NRN 236 CUMBEE, C.
Section 2 12:50 Daily NRN 232 GORDON, I.
(Reserve time for observation during the forenoon.)

Effects of physical growth, the family, peer relationships, and the school on the development of adequate personalities.

EDF. 300.—History of Education in the United States. 3 credits.
9:20 Daily NRN 228 POTTER, R.

The historical development of our schools is traced with the implications on this development for the role of today's schools in its broad economic, sociological and psychological significance.

EDF. 360.—Elementary Statistical Methods in Education. 3 credits.
11:40 Daily NRN 228 HINES, V.

Application of selected techniques to organization and interpretation of educational data.

EDF. 440.—Dynamics of Human Development. 3 credits.
10:30 Daily NRN 232 GORDON, I.
(Reserve time for observation in the forenoon.)

Growth and development of children into mature personalities.

EDF. 442.—Educational Psychology. 3 credits.
9:20 Daily NRN 232 LAIRD, D.
(Reserve time for observation during the forenoon.)

Application of psychological principles to the educative process; individual differences, principles of learning; transfer of training; the nature of reasoning.

EDF. 450.—Measurement and Evaluation in Education. 3 credits.
11:40 Daily NRN 232 LAIRD, D.

Study of basic principles and methods of measurement; evaluation of pupil learning in school.

GRADUATE COURSES

EDF. 600.—History of Education. 3 credits.
10:30 Daily NRN 228 POTTER, R.

A survey of educational theories and practices taken in their cultural setting from primitive time to the present.

EDF. 610.—Democracy and Education. 3 credits.
7:00 Daily NRN 232 BAKER, M.

A study of the reciprocal relationships of democracy and education.

EDF. 611.—Theories of Mind. 3 credits.
10:30 Daily NRN 226 CURRAN, R.

Conceptions of mind and thinking processes with implications for curriculum organization and classroom practice.

EDF. 620.—Socio-Economic Foundations of Education. 3 credits.
Section 1. 7:00 Daily NRN 226 HINES, V.
Section 2. 9:20 Daily NRN 226 BAKER, M.

The socio-economic bases for education are comprehensively surveyed.

EDF. 641.—Educational Psychology—Personality Dynamics. 3 credits.
Section 1. 8:10 Daily NRN 232 COMBS, A.
Section 2. 10:30 Daily NRN 236
Section 3. 12:50 Daily NRN 236

An examination of the dynamics of behavior and its implication for education.

EDF. 642.—Educational Psychology—Problems. 3 credits.
7:00 Daily NRN 236 CUMBEE, C.

Individualized study of problems dealing with child development, adolescence, learning, and other areas of educational psychology.

EDF. 660.—Educational Statistics. 3 credits.
7:00 Daily NRN 228 SCATES, D.

Statistical methods as applied to educational data and problems are systematically studied.

EDF. 720.—School and Society. 3 credits.
11:40 Daily NRN 226 CURRAN, R.

Provides a social and philosophic frame of reference through a rigorous study of the society in which education takes place and the implication of this society for the functioning of the school. Conducted on a seminar basis. Limited to students in the sixth year program of teacher education and candidates for the doctor's degree in education.

EDF. 760.—Techniques of Research. 3 credits.
8:10 Daily NRN 228 SCATES, D.

Training is given in identifying research problems, selecting and organizing useful means for research, methods of gathering data, and best practices for interpreting and reporting observed phenomena.

EDUCATION—PERSONNEL SERVICES

EDP. 300.—Principles and Practices for Teaching Exceptional Children. 3 credits.
Prerequisite: EDF. 245 or equivalent.
11:40 Daily NRN 101 MORGAN, A. E.

A study of exceptional children as commonly found in schools. Consideration will be given to incidence, causes, diagnosis, agencies for referral, and recommended teaching procedures in respect to the blind, partially seeing, deaf, hard-of-hearing, speech defective, crippled, mentally retarded, mentally superior, and socially and emotionally disturbed children.

EDP. 500.—Materials and Methods for Teaching Slow Learners. 3 credits. Prerequisite: EDP. 300 or PSY. 312.
9:20 Daily NRN 101 CUNNINGHAM, M.

Programs will be constructed which will correlate skill subjects with the cores of interest. Curricular materials will be considered which can be used to teach children who are mentally handicapped at various maturation levels and in various situations. Classroom teachers would find this course helpful.

EDP. 503.—Methods of Teaching Crippled Children. 3 credits.
Prerequisite: EDP. 300 or PSY. 312
8:10 Daily NRN 101 MORGAN, A. E.

An analysis is made of academic difficulties and needs due to specific handicaps. Consideration is given to maintaining a normal school program for each child.

EDP. 600.—Teaching Exceptional Children. 3 credits.
Prerequisite: EDP. 300 or PSY. 312
12:50 Daily NRN 101 HAIMBACH, D.

An advanced course in the care, treatment and education of children with problems and handicaps.

EDP. 603.—Education of the Gifted Child. 3 credits.
10:30 Daily NRN 101 CUNNINGHAM, M.

Definitions of giftedness, characteristics of gifted children, school opportunities and outside of school influence which affect the achievement of gifted children will be considered. Other aspects of the problem of teaching gifted children, methods and materials which are effective with them, and the mental health aspects of their relationships with peers, families, and other adults, will be stressed.

EDP. 610.—Principles of Guidance. 3 credits.
Prerequisite or corequisite: EDF. 641.
9:20 Daily NRN 105 COMBS, A. W.

An introduction to the field of guidance and student personnel work.

EDP. 611.—Occupational Information. 3 credits.
11:40 Daily NRN 105

Methods of studying occupations; sources of information concerning employment conditions, job requirements, training facilities, occupational trends; evaluation of occupational literature; use of occupational information in counseling.

EDP. 612.—Techniques of Guidance. 3 credits.
Prerequisite or corequisite: EDP. 612, EDF. 641, EDF. 450 or equivalent, or approval of instructor.
9:20 Daily NRN 114

A survey of the various techniques used by teachers and guidance specialists, with special reference to tests, records, and counseling.

EDP. 613.—Personnel Testing. 3 credits.
Prerequisite: EDF. 360 or EDF. 450 or permission of instructor.
Section 1. 10:30 Daily NRN 105
**Section 2 to arrange

A study of typical aptitude tests and inventories used in personnel work, with assigned readings in test literature. Procedures for standardizing and validating tests will be considered, with emphasis on the evaluation of the various instruments for use in personnel work.

EDP. 614.—Case Studies in Counseling. 3 credits.
Prerequisite: EDF. 641, EDP. 610, and EDF. 450, or equivalent.
Section 1. 12:50 Daily NRN 105 SOPER, D. W.
**Section 2 to arrange

Competency is developed in the appraisal of diagnostic data obtained from case histories and in the application of counseling theory and techniques. Actual case records will be prepared, studied, and discussed in class.

**Open only to students enrolled in Guidance Institute described in Graduate section of this bulletin.

*EDP. 616— Practicum in Counseling. 3 credits. Advanced written application for admission to the course is required. Must be taken concurrently with EDP. 617.
To arrange SOPER, D. W.

Experience in individual counseling will be provided under supervision.

*EDP. 617.—Practicum in Counseling. 3 credits. Must be taken concurrently with EDP. 616.
To arrange.

EDP. 618.—The Organization and Administration of Guidance Programs. 3 credits. Prerequisites: EDP. 610, EDF. 641, EDF. 450
8:10 Daily NRN 105

Methods of organizing and administering personnel programs in educational institutions.

**EDP. 660.†—Problems in Student Personnel Work. 3 or 6 credits.
Section 1. To arrange LANDSMAN, T.
Section 2. To arrange FORDYCE, J. W.

An inservice education course open only to persons engaged in personnel work in education or closely allied areas.

EDS. 305.—The Secondary School Today. 3 credits.
Section 1 9:20 Daily NRN 138 DURRANCE, C. L.
Section 2 11:40 Daily NRN 138 OLIVA, P. F.

Purposes and organization of the secondary school, curriculum, teacher's role, adolescent behavior and application of learning theory, guidance, classroom management, student activities, evaluation and reporting student progress, educational issues, and similar topics will be organized to help the student acquire certain basic competencies for teaching.

GRADUATE COURSES

EDS. 550.—The Teaching of Mathematics in the Junior High School. 3 credits.
9:20 Daily PEA. 10 KIDD, K. P. and GAGER, W. A.

Consideration of problems of mathematics curriculum at the junior high school level, and approaches and materials for teaching various mathematics concepts.

EDS. 580.—Teaching in Adult Education Program. 3 credits.
11:40 Daily NRN 114

Characteristics of adult students, characteristics and certification of teachers of adults, preparation of courses for adults, techniques of instruction, and evaluation of adult courses and teaching.

EDS. 585.—Foreign Languages in the Secondary School. 3 credits. Prerequisite: In-service status as a teacher of foreign language. (Co-requisite: EDS. 586 or FLE. 586).
10:30 Daily AND 5 OLIVA, P. F. and MUELLER, T. H.

General problems of language learning and problems peculiar to the teaching of foreign languages in high school and junior college. Historic methods of language teaching. Newer methods, including use of audio-visual materials.

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*Must be taken concurrently.
**Open only to students enrolled in Guidance Institute described in the Graduate section of this bulletin.
†Students registering for section 1 will register for 6 credits, students registering for section 2 will register for 3 credits.

EDS. 586.—Foreign Language for Teachers. 3 credits. Prerequisite: In-service status as a teacher of foreign language. (Co-requisite: EDS. 585 or FLE. 585).

8:10 Daily AND 5 OLIVA, P. F. and MUELLER, T. H.

Designed to offer help in all phases of instruction to in-service teachers of foreign languages. Intensive training to improve oral fluency in a foreign language and instruction in the cultural and behavior patterns of the foreign people will be given. (As a summer workshop in cooperation with EDS. 585 or FLE. 585 the theory of audio-visual materials and the principles of linguistic science and language learning will be demonstrated.)

EDS. 600.—Foundations of Secondary School Curriculum. 3 credits.

Section 1 10:30 Daily NRN 214 OLSON, C. M.

An analysis of the assumptions underlying the secondary school, the research of which present-day programs are based and the emerging patterns in secondary school curricula.

EDS. 601.—The Junior High School Curriculum. 3 credits.

9:20 Daily NRN 201 BROWNE, E. B.

Teachers, principals, and supervisors are given an opportunity to analyze and to evaluate the curriculum offerings in the modern junior high school. Emphasis will be placed on developing a school program to meet the needs of early adolescents.

EDS. 602.—The Secondary School Curriculum. 3 credits.

10:30 Daily NRN 114 BROWNE, E. B.

An analysis of the scope, functions, and types of secondary school curricula. Consideration will be given to criteria for judging the secondary school curriculum and ways of improving existing programs.

EDS. 605.—Evaluation in the Secondary School Program. 3 credits.

12:50 Daily NRN 138 SCRAFFORD, R. A.

A study of procedures and of techniques of evaluation in secondary schools.

EDS. 622.—Teaching Secretarial Studies. 3 credits.

11:40 Daily NRN 306 DODSON, G.

For teachers of business subjects. The curriculum, materials, and methods of teaching secretarial subjects are studied. Each student will make an intensive study in the subject in which he is particularly interested. Whenever possible the facilities of the P. K. Yonge Laboratory School will be used for the study of problems undertaken.

EDS. 623.—Teaching Bookkeeping and Consumer Business. 3 credits.

8:10 Daily NRN 305 DODSON, G.

The curriculum, materials, and methods of teaching bookkeeping, economics of business, business law, business arithmetic, economic geography, and business correspondence are studied.

EDS. 624.—Materials and Methods of Teaching General Business. 3 credits.

10:30 Daily NRN 305 DODSON, G.

The objectives, content, resource materials, and methods of teaching general business in the junior and senior high schools are studied. Each student will participate in the development of resource units. Consideration will be given to the problem of coordination of general business and social studies.

EDS. 640.—Social Studies in the Secondary School. 3 credits.

11:40 Daily NRN 150 HENDERSON, L. N.

Consideration of the problems of teachers, supervisors, and principals in teaching social studies in grades seven through fourteen. Trends, basic principles, recent improvements in methods and materials will be emphasized. Each student will be given opportunity to develop understandings and skills in a special problem in the social studies.

EDS. 650.—Mathematics in the Secondary School. 3 credits.
9:20 Daily PEA 11 GAGER, W. A. and KIDD, K. P.

Selection and use of resource materials in junior and senior high school mathematics; current problems in the teaching of mathematics; laboratory experiences in surveying, preparation of displays, construction of equipment, and examination of films and other types of materials.

EDS. 660.—Science in the Secondary School. 3 credits.
8:10 Daily NRN 142 ARNOLD, L. A.

Current problems in teaching science in secondary schools and junior colleges. New materials and techniques of teaching and recent developments in the sciences and their implications.

EDS. 670.—Language Arts in the Secondary School. 3 credits.
11:40 Daily NRN 212 SCRAFFORD, R. A.

Gives opportunity to principals, supervisors, graduate students, and in-service teachers to work on their own problems at the various levels in grades seven through fourteen. Present trends, basic principles, methods, and materials will be considered.

EDS. 677.—Technical Education in the Junior College. 3 credits.
8:10 Daily NRN 302 MEYER, H. K.

An analysis of industrial technical education in modern society, with particular emphasis upon community junior college programs leading to Associate of Science or similar two-year degrees. The course is planned to serve both teachers and administrators in furthering an understanding of technical education as one of the three-fold legal bases for the Florida community college program.

EDS. 700.—Seminar in Secondary Education. 3 credits.
8:10 Daily NRN 226 OLSON, C. M.

An analysis of the issues and research in the field of secondary education.

EDUCATION-VOCATIONAL AGRICULTURE

EDV. 306.—Vocational Education. 3 credits.
9:20 Daily NRN 150 GARRIS, E. W.

The development, function, and scope of vocational education as provided for by the National Vocational Education Acts of Congress.

EDV. 612.—Philosophy and Administration of Vocational Education. 3 credits.
10:30 Daily NRN 150 GARRIS, E. W.

Basic principles for administering the program of vocational education on a national, state, and local level will be considered.

ELECTRICAL ENGINEERING

EL. 211.—Introduction to Electrical Engineering. 3 credits. Corequisites: PS. 206, MS. 354.
10:30 Daily ENG 334

A course to provide sophomore students who are planning to enroll in the Department of Electrical Engineering with basic knowledge of fundamentals of electric, magnetic and dielectric circuits, and direct current methods of measurements.

EL. 342.—Elements of Electrical Engineering. 3 credits. The second half of the course EL. 341-342. Prerequisite: EL. 341.
9:20 Daily ENG 346

For engineering students not majoring in electrical subjects. Representation of alternating current by vectors and complex quantities; measurement of power in single phase and polyphase circuits; generation; transmission, and utilization of electrical energy; characteristics of a.c. machinery testing of a.c. equipment.

EL. 346.—Elementary Electronics. 4 credits. Prerequisite: EL. 361. Students taking EL. 346 will register for one lecture (Section 1 or 2) and one laboratory (Section 11, 12, or 13).

Section 1 8:10 Daily ENG 334
Section 2 9:20 Daily ENG 328
Section 11 12:50-4:10 M W ENG 427
Section 12 12:50-4:10 T Th ENG 427
Section 13 6:30-9:50 PM T Th ENG 427

Basic principles of electron-tubes and electron-tube circuits, vacuum tubes as circuit elements, amplifiers. Classroom and laboratory examples taken from the fields of telephone and radio communications, and electron instrumentation.

EL. 350.—Electrical Laboratory. 1 credit. The second half of the course EL. 349-350. Corequisite: EL. 342.

12:50-4:10 T Th ENG 230

A laboratory course for engineering students not majoring in electrical engineering. Experimental studies and test of alternating current circuits and apparatus.

EL. 361.—Electric Circuits. 4 credits. Prerequisites: MS. 354, PS. 206, EL. 211.

9:20 Daily ENG 420, T Th 6:30-9:50 PM ENG 427

Generation of alternating voltage and current; instantaneous and effective current; Vector Algebra as applied to alternating current circuit analysis in the solution of problems; series parallel circuits; impedance matching; network theorems; coupled circuits; balanced and unbalanced polyphase circuits; filters; elements of transmission lines; symmetrical components; nonsinusoidal waves; transient conditions; laboratory experiments in measurements; study of instruments, and verification of theorems.

EL. 362.—Electric Circuits. 4 credits. The second half of the course EL. 361-362. Prerequisite: EL. 361.

Students taking EL. 362 will register for one lecture (Section 1 or 2) and one laboratory (Section 11, 12, or 13).

Section 1 8:10 Daily ENG 328
Section 2 9:20 Daily ENG 334
Section 11 12:50-4:10 M W ENG 424
Section 12 12:50-4:10 T Th ENG 424
Section 13 6:30-9:50 PM M W ENG 424

EL. 493.—Electrical Design and Experimental Procedure. Variable credit.* To arrange.

Special projects are studied and reports prepared thereon.

EL. 637.—Transients in Linear Systems. 3 credits.

Transient analysis of electrical and mechanical systems stressing Laplace transform methods.

EL. 654.—Theory of Communication. 3 credits.

Modulation and detection, signal, spectra, noice, and the transmission of information.

EL. 691.—Special Topics in Electrical Engineering. Variable credit.* To arrange.

Laboratory, lectures, or conference covering specially selected topics in Electrical Engineering.

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*Credit assigned must be shown on course assignment card.

EL. 699.—Research and Master's Thesis. 0 to 6 credits.*

Directed research and writing. For students working for the master's degree. Credits cannot be used to reduce the total required for the degree.

EL. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

Directed research and writing. For students working for the doctor's degree. Credits cannot be used to reduce the total required for the degree.

ENGINEERING GRAPHICS

EGR. 181.—Engineering Drawing. 3 credits. Corequisite: MS. 105

Section 1 7:00 to 9:10 Daily and 1 two-hour period to arrange with instructor ENG 514

Section 2 9:20 to 11:30 Daily and 1 two-hour period to arrange with instructor ENG 514

How to make and how to read engineering drawings.

EGR. 182.—Descriptive Geometry. 3 credits. Prerequisite: EGR. 181.

Section 1 7:00 to 9:10 Daily and 1 two-hour period to arrange with instructor ENG 500

Section 2 9:20 to 11:30 Daily and 1 two-hour period to arrange with instructor ENG 500

Graphical representation of basic geometrical elements and the solution of related space problems.

EGR. 282.—Mechanisms and Kinematics. 3 credits. Prerequisite: EGR. 182 Corequisite: PS. 205

Section 1 8:10 M T W Th ENG 512

Laboratory 12:50 to 4:20 T Th ENG 518

Section 2 9:20 M T W Th ENG 512

Laboratory 12:50 to 4:20 M W ENG 518

Revolving and oscillating bodies, link work, belts, pulleys, gears, and cams; trains of mechanisms and the velocities of moving parts.

ENGINEERING MECHANICS

EM. 313.—Fluid Mechanics. 4 credits. Prerequisites: EM. 365, MS. 354

9:20 Daily ENG 527

Laboratory 2:00 to 5:20 T Th RLA 100

Mechanics of compressible and incompressible fluids. Special emphasis on viscosity effects. Bernoulli's theorem, surface and form resistance, impulse-momentum principle, lift and drag, laws of similarity and dimensional analysis. Study includes statics and dynamics, and the application of basic principles to the flow of fluids through measuring devices and pipes, and around immersed bodies.

EM. 365.—Engineering Mechanics-Statics. 3 credits. Prerequisites: PS. 205, ML. 182. Corequisite: MS. 354.

Section 1 8:10 Daily ENG 430

Section 2 9:20 Daily ENG 430

Section 3 10:30 Daily ENG 430

Principles of statics; resultants and equilibrium of co-planar force systems; resultants and equilibrium of space force systems; trusses containing two force members; structures containing three force members; friction; centroids; moments of inertia; Mohr's circle.

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*Credit assigned must be shown on course assignment card.

EM. 366.—Engineering Mechanics-Dynamics. 3 credits. Prerequisites: EM. 365, MS. 354.

Section 1 8:10 Daily ENG 418
Section 2 9:20 Daily ENG 418
Section 3 10:30 Daily ENG 420

Dynamics of particles and rigid bodies for rectilinear translation, curvilinear translation, rotation and plane motion; mass moment of inertia; work and energy; impulse and momentum.

EM. 367.—Strength of Materials. 3 credits. Prerequisites: EM. 365, MS. 354.

Section 1 9:20 Daily ENG 320
Section 2 10:30 Daily ENG 428
Section 3 11:40 Daily ENG 420

Tension, compression and shear, stresses and strains; combined stresses; Mohr's circle; riveted joints for pressure vessels and structural work; torsion; bending moments; stresses and deflection of beams; eccentric loading; columns.

ENGLISH

EH. 133.—Effective Writing. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.

2:00 Daily D 120
3:10 W

Designed to aid the student to present his ideas in writing which is not only accurate and clear but pleasing and attractive to the reader. Students are urged to do creative work.

EH. 134.—Contemporary Reading. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.

10:30 Daily AND 20

Designed to aid the student in planning for himself a well-rounded program in reading, which will serve to keep him abreast of the best in contemporary thought. Some time will be spent in introducing each student to the bibliography and writing in the area of his special professional interest.

EH. 201.—Introduction to World Literature. 3 credits. May be taken for credit without EH. 202. Prerequisite: C-3.

8:10 Daily AND 204 MURPHREE, A. A.

An introductory course on the backgrounds of English language and literature, with readings from selected masterpieces of the ancient, medieval, and renaissance worlds, from Homer to Cervantes.

EH. 202.—Introduction to English Literature. 3 credits. The second half of the course EH. 201-202. May be taken for credit without EH. 201. Prerequisite: C-3.

10:30 Daily AND 204 STRYKER, D.

Readings and lectures in the great masterpieces of English literature. Selections chiefly from the work of Chaucer, Shakespeare, Milton, Swift, Pope, Wordsworth, Keats, and Browning.

EH. 215.—Introduction to American Literature. 3 credits. Prerequisite: C-3.

11:40 Daily AND 212 BIGELOW, G. E.

A selection of major American writers from Benjamin Franklin to Robert Frost. Emphasis is placed on understanding and critical appreciation rather than on literary history.

EH. 255.—Business Communications. 3 credits. Prerequisite: C-3.
(Register for one section only.)
Section 1 7:00 Daily AND 210 HUNTER, J. P.
Section 2 9:20 Daily AND 204 LANDINI, R. G.

Instruction and practice in giving short oral reports, dictating and writing the most generally used business letters, and planning, and executing short written reports, in accordance with the standards of business usage. The student is introduced to business and professional publications, corporation and municipal reports, and other media of communication.

EH. 306.—Modern English Grammar. 3 credits. Prerequisite: C-3 and C-5.
(Register for one section only.)
Section 1 9:20 Daily AND 210 MORRIS, A. C.
Section 2 11:40 Daily AND 210 MOUNTS, C. E.

A systematic review of current English grammar, including attention to functional aspects of sentence structure, punctuation, and other problems of the mechanics of composition.

EH. 365.—Contemporary Literature: Fiction. 3 credits. Prerequisite: C-3 and C-5.
(Register for one section only.)
Section 1 9:20 Daily AND 212
Section 2 12:50 Daily AND 212 RUFF, W.

The most important British and American writers of twentieth-century prose fiction, with major emphasis upon recent novelists.

EH. 401.—Shakespeare. 3 credits. Prerequisite: C-3, C-5, and one course in English or Speech.
10:30 Daily AND 210 ROBERTSON, C. A.

Devoted chiefly to the romantic cowedies and the history plays, including **A Midsummer Night's Dream, The Merchant of Venice, Much Ado, As You Like It, Twelfth Night, Richard the Second,** and **Henry the Fourth.** As an aid to the reading of Shakespeare, some of the most interesting features of the Elizabethan stage and drama are treated briefly.

EH. 491.—Children's Literature. 3 credits. Prerequisite: C-3 and C-5.
(Register for one section only.)
Section 1 8:10 Daily AND 212 WENZEL, E.
Section 2 12:50 Daily AND 210 GEHAN, F. E.

A course designed to arouse and satisfy a genuine interest in children's books apart from school text books, to aid the student to obtain a better working knowledge of this literature, and to make him more aware of degrees of excellence in content and form.

EH. 492.—Literature for the Adolescent. 3 credits. Prerequisite: C-3, C-5, and one course in English.
9:20 Daily MAT 3 GEHAN, F. E.

A survey of the different types of reading the adolsecent (13 to 18) pursues, with special emphasis upon the criteria for choosing good books, and upon developing a familiarity with the many books for young people of this age.

EH. 495.—Major Writers of the Rennaissance. 3 credits. Prerequisite: C-3, C-5, and one course in English.
10:30 Daily AND 212 HERBERT, T. W.

Selections from the best works of principal writers other than Shakespeare, with special emphasis on the poetry of Milton.

EH. 497.—Major Writers of the Romantic Period. 3 credits. Prerequisite: C-3, C-5, and one course in English.
8:10 Daily AND 210 STRYKER, D.

Selections from the best works of such writers as Wordsworth, Coleridge, Scott, Lamb, Byron, Shelley, and Keats.

EH. 502.—American Literature. 3 credits. The second half of the course EH. 501-502. May be taken for credit without EH. 501. Prerequisite: C-3, C-5, and one course in English.
11:40 Daily AND 204 FAIN, J. T.

Covers the period from 1865 to the present.

EH. 506.—History of the English Language. 3 credits. Prerequisite: C-3, C-5, and one course in English or in a foreign language.
12:50 Daily AND 204 BOONE, L. P.

The nature, origin, and development of the English language, with special stress upon structural and phonetic changes and upon the principles which govern modern usage.

EH. 630.—Individual Work. 3 credits. Prerequisite: 12 hours of English and approval of department head.
To arrange ROBERTSON, C. A.

Designed for graduate students needing work in subjects not available in currently offered courses. With change of content EH. 630 may be repeated for credit.

EH. 634.—English Literature of the 18th Century. 3 credits.
10:30 Daily LIB 404 VOWLES, R. B.

The Age of Johnson.

EH. 653.—English Literature of the Victorian Period. 3 credits.
9:20 Daily LIB 404 KIRKLAND, E. C.

The Victorian prose writers.

EH. 699.—Research and Master's Thesis. 0 to 6 credits.*

EH. 735.—Seminar in Restoration and 18th Century Literature. 3 credits.
To arrange LIB 407 WILLIAMS, A. L.

EH. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

ENTOMOLOGY

EY. 203.—Economic Entomology. 3 credits.
8:10 M T W Th MCC 343 MURPHEY, MILLEDGE, JR.
Laboratory: 12:50 to 3:00 M MCC 346

An introduction to economic entomology, which is based upon a study of the life histories, and control of major insect enemies of American agricultural crops. Particular stress is placed upon southern and Florida economic insects. This course is designed for all students in the College of Agriculture either as a pre- or corequisite for other entomology courses.
Textbook, "Destructive and Useful Insects" by Metcalf, Flint and Metcalf.

EY. 432.—Florida Fruit & Vegetable Insects. 3 credits. Prerequisite or corequisite: EY. 203, or EY. 307.
10:30 M T W Th MCC 343 MURPHEY, MILLEDGE, JR.
Laboratory: 12:50 to 3:00 W MCC 346

The identification, life histories, and control of the major insect pests of Florida's fruit and vegetable crops. For all students in the College of Agriculture especially those interested in economic plant life.
Textbook, "Subtropical Entomology" By Ebeling.

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*Credit assigned must be shown on course assignment card.

EY. 460.—Insect Identification. 3 credits.
8:10 T Th MCC 346 HETRICK, L. A.
Laboratory: 12:50 to 3:00 T Th MCC 346

A survey of immatures and adults of all orders. Identification of insects of all major families. Textbooks, "Introduction to Entomology," by Comstock, and "How to Know the Immature Insects," by Chu.

GRADUATE COURSES

EY. 603.—Problems in Entomology. 2 to 4 credits.*
To be arranged STAFF

A problem for study which may be selected in any field of entomological specialization; including Histology, Morphology, Physiology, Taxonomy, Embryology, Biological Control, Ecology, Toxicology, Plant Quarantine, Commercial Entomology, Life History and Habits, Biology, and Medical and Veterinary Entomology.

EY. 699.—Research and Master's Thesis. 0-6 credits.*
STAFF

EY. 799.—Research and Doctoral Dissertation. 1-6 credits.*

FAMILY LIFE

FAM. 111.—Personal Development. 2 credits.
10:30 M T W Th AE 4 ALBRECHT, R. E.

The development of personal assets through an analysis of contributing factors; the behavior of self and others; qualities of effective personalities. The individual a family member.

FAM. 301.—Family Relationships. 3 credits. Prerequisites: SY. 244 or PSY. 201 with permission of instructor.
8:10 Daily AE 4 ALBRECHT, R. E.

Personal and family relationships; guidance of the student in establishing successful family life patterns.

FINANCE AND INSURANCE

FI. 260.—Fundamentals of Insurance. 3 credits.
10:30 Daily MAT 213 CLINE, R. S.

The basic fundamentals underlying the business of insurance as a prerequisite for more advanced and detailed work in the subject designed to serve two distinct needs: (1) to give students of economics and commerce a general knowledge of the subject; and (2) to lay a foundation for the future work of those interested in entering the business. Not open to students with 4BA classification.

FI. 422.—Investments. 3 credits. Prerequisite FI. 427.
8:10 Daily MAT 216 MC FERRIN, J. B.

The nature of investments; investment policies and types of securities; analysis of securities; the mechanics and mathematics of security purchases; factors influencing general movements of security prices.

FI. 427.—Corporation Finance. 3 credits.
9:20 Daily MAT 114 FRAZER, W. J., JR.

The economic and legal forms of business enterprise; the instruments of business finance; financial problems as they relate to the ordinary operations of the business involving fixed and working capital, income, dividend policy, and current borrowing.

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*Credit assigned must be shown on course assignment card.

FI. 629.—International Finance. 3 credits.
9:20-12:00 T Th To be announced MATTHEWS, C. A.

International monetary systems with special emphasis on the role of central banks. Attention is concentrated on the inter-war period, the factors leading to the breakdown of international financial systems and attempts at reconstruction culminating in the World Bank and the International Monetary Fund.

FI. 699.—Research and Master's Thesis. 0 to 6 credits.
To arrange.

FOOD TECHNOLOGY AND NUTRITION

FT. 499.—Special Problems in Food Technology and Nutrition. 1-3 credits.
To arrange.

Individual problems selected in various phases of food technology and nutrition.

GRADUATE COURSES

FT. 670.—Non-thesis Research in Food Technology and Nutrition. 1-6 credits.*

FT. 699.—Research and Master's Thesis. 0-6 credits.*

FOREIGN LANGUAGE

FLE. 585.—Foreign Languages in the Secondary School. 3 credits.
Identical with EDS. 585. Prerequisite: In-service status as a teacher of foreign language.
10:30 Daily AND 4 MUELLER, T. H., OLIVA, R. F., WEBB, W. B.

General problems of learning, and problems peculiar to the teaching of foreign languages in high school and junior college. Historic methods of language teaching. Newer methods, including use of audio-visual materials.

FLE. 586.—Foreign Language for Teachers. 3 credits.
Identical with EDS. 586. Prerequisite: In-service status as a teacher of foreign language.
10:30-12:20 Daily AND 5 KURTH, A. L.
10:30-12:30 Daily AND 18 RAMIREZ, A., ARNADE, C. W.

Intensive training to improve oral fluency: conversation, pronunciation and structural patterns. Instruction in the cultural and behavior patterns of the foreign people.

FORESTRY

FY. 221.—Summer Camp. 5 credits.
Field STAFF

Summer camp covers the entire field of forestry. Students receive field instruction in surveying, cruising, silviculture, and forest management.

FY. 228.—Forest Mensuration. 3 credits.
Field STAFF
NOTE: This course will be given in conjunction with FY. 221.

FY. 431.—Forest Problems Seminar. Variable credit.*
To arrange STAFF

Supervised study and investigations in some particular phase of forestry or wildlife management.

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*Credit assigned must be shown on course assignment card.

GRADUATE COURSES

FY. 602.—Research Problems in Silviculture. 3 to 6 credits.*
To arrange.

Individual research on specific problems in silvics, forest tree seed, forest tree propagation, forest soils, forest ecology, and silvicultural practices.

FY. 603.—Research Problems in Wood Utilization. 3 to 6 credits.*
To arrange.

Individual research in wood technology, wood preservation, naval stores, small sawmill operation.

FY. 604.—Research Problems in Forest Economics and Management. 3 to 6 credits.*
To arrange.

Individual research in forest economics, forest finance, or forest management.

FY. 605.—Research Methods in Wildlife Management. 3 credits.
To arrange BECKWITH, S. L.

A detailed study of field and laboratory procedures used in wildlife research.

FY. 606.—Research Problems in Wildlife Management. 3 to 6 credits.*
To arrange BECKWITH, S. L.

Individual problems in the field of wildlife management.

FY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

FRENCH

FH. 133.—First-Year French. 3 credits.
7:00 M T W Th AND 5 MUELLER, T. H.
Laboratory: 8:10 Daily AND 11

FH. 134.—First-Year French. 3 credits.
8:10 M T W Th AND 5 WALLACE, M. J.
Laboratory: 7:00 Daily AND 11

FH. 201.—Second-Year French. 3 credits.
9:20 M T W Th AND 5 KURTH, A. L.
Laboratory: 8:10 Daily AND 11

FH. 202.—Second-Year French. 3 credits.
12:40 M T W Th AND 4 WALLACE, M. J.
Laboratory: 7:00 Daily AND 11

FH. 430.—Individual Work. 3 credits.
To arrange AND 3-B KURTH, A. L.

FH. 630.—Individual Work. 3 credits.
To arrange AND 3-B KURTH, A. L.

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*Credit assigned must be shown on course assignment card.

FRUIT CROPS

FC. 201.—Principles of Horticulture. 3 credits. Prerequisite: BTY 101-102 or C-6.
8:10 M T W Th MCC 6 WOLFE, H. S.
Laboratory 8:10-10:20 F MCC 105

Home and commercial production of fruits, vegetables and flowers. Both for students not expecting to major in horticulture and as an introductory course for horticulture majors, with particular emphasis on fruit crops. Horticulture majors should take in sophomore year. Textbook: Christopher—Introductory Horticulture.

FC. 341.—Citrus Growing. 3 credits. Prerequisites: BTY. 101-102 or C-6.
10:30 M T W Th MCC 9 ZIEGLER, L. W.
Laboratory 12:50-3:00 M MCC 105

Citrus production and methods of culture designed to fill the need of the general student in agriculture. It is not to be taken for credit by citrus majors, but is required of students majoring in Agricultural Education and Agricultural Engineering.

FC. 403.—Physiology of Fruit Production. 3 credits. Prerequisites: BTY. 211, FC. 201, SLS. 302.
10:30 Daily MCC 6 WOLFE, H. S.

Physiological principles underlying the production of fruit crops.

FC. 499.—Special Problems in Fruit Crops. 1-3 credits.
To arrange.

Open to Fruit Crops Seniors on consent of instructor. Individual research in various phases of fruit production, propagation and processing.

GRADUATE COURSES

FC. 670.—Non-thesis Research in Fruit Crops. 1 to 6 credits.*
To arrange.

FC. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

FC. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange.

GENERAL SCIENCE

GL. 301.—Elementary School Science. 3 credits.
10:30 Daily NRN 142 SHECKLES, M.

The role of science in the development of elementary school children. Experience with the content, materials, and approaches of elementary school science.

GEOGRAPHY

GPY. 200.—Introduction to Geography. 3 credits.
(Register for one section only.)
Section 1 8:10 Daily FLO 208 VARNEY, C. B.
Section 2 10:30 Daily FLO 208 VARNEY, C. B.

A study of the relationships between population, human activities and the physical world.

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*Credit assigned must be shown on course assignment card.

GPY. 382.—Principles of Resource Utilization. 3 credits. Prerequisite: GPY 200.
7:00 Daily FLO 208 SAGER, N. A.

A comprehensive review of the natural and human resources of the United States followed by an intensive study of the wise and wasteful practices of exploitation and utilization of these resources. A study of the human and economic significance of the principles of conservation with special reference to the South. Course designated to satisfy certification for social studies teachers.

GPY. 430.—Individual Work. 3 credits. For undergraduates only. Prerequisite: 12 hours of Geography and consent of instructor.
To arrange.

Qualified students and the instructor concerned may choose a particular topic or problem for study. GPY. 430 may be repeated for full credit with change of content.

GPY. 481.—Geography of the United States and Canada. 3 credits. Prerequisite: GPY. 200.
9:20 Daily FLO 208 MARCUS, R. B.

A survey of the continent north from the Rio Grande with special reference to the natural resources of the United States. The analysis of the major regions of the United States and Canada.

GPY. 624.—Advanced Economic Geography. 3 credits.
To arrange PIERSON, W. H.

A lecture and research course analyzing the geographic and economic factors affecting the industrial and commercial development of the leading countries of the world. Students will be required to make intensive individual studies of selected subjects.

GPY. 630.—Individual Work. 3 credits.
To arrange.

A reading or research course in such areas of Geography as are needed by graduate students. May be elected for full credit in subsequent sessions with change of content.

GPY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

GPY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

GEOLOGY

GY. 203.—Elements of Physical Geology. 3 credits.
9:20 M T W Th FLO 209
Laboratory: 2:00-4:10 T Th FLO 209

A study of minerals and rocks and their formation, geological processes, land forms and their interpretation, and the applications of geological knowledge to human affairs.

GY. 400.—Florida Geology for Teachers. 3 credits.
9:20 M T W F FLO 202
Laboratory: 2:00-4:10 T F FLO 202

Principles of physical and historical geology as applied to the geology and mineral resources of Florida.

GY. 650.—Ground Water Geology of the Coastal Plain Province. 3 credits.
To be arranged.

An investigation of the origin, occurrences, quality, quantity, methods of recovery and use of the ground water in the Coastal Plain Province with special reference to Florida and immediately adjoining States.

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*Credit assigned must be shown on course assignment card.

GERMAN

GN. 133.—First-Year German. 3 credits.
7:00 M T W Th AND 4 JONES, O. F.
Laboratory: 8:10 Daily AND 11

GN. 134.—First-Year German. 3 credits.
8:10 M T W Th AND 4 MAUDERLI, M. O.
Laboratory: 7:00 Daily AND 11

GN. 201.—Second-Year German. 3 credits.
9:20 M T W Th AND 4 MAUDERLI, M. O.
Laboratory: 8:10 Daily AND 11

GN. 202.—Second-Year German. 3 credits.
12:40 M T W Th AND 18 VALK, M. E.
Laboratory: 7:00 Daily AND 11

GN. 430.—Individual Work. 3 credits.
To arrange AND 3-A VALK, M. E.

GN. 630.—Individual Work. 3 credits.
To arrange AND 3-A VALK, M. E.

GREEK

GK. 530.—Individual Work. 3 credits.
To arrange AND 3-B BRUNET, J.

HISTORY

HY. 152.—Florida History, 1860 to the Present. 3 credits.
8:10 Daily PEA 114

Florida during the Civil War and Reconstruction; the development of agriculture and industry, society and education; political reaction and the progressive era; the tourist trade, urbanization, and contemporary politics.

HY. 202.—History of World Civilizations, 1550 to the Present. 3 credits.
10:30 Daily PEA 114 PAYNE, A. N.

The historical evolution of nationalism and the modern state; the global struggle for power; the spread of European science, technology, industrialism and imperialism throughout the world; the development of contemporary political, social and economic institutions and ideas. The central theme is the expansion of the influence of Western Europe, with some attention to the rise of the United States as a world power.

HY. 245.—United States History to 1865. 3 credits.
9:20 Daily PEA 112 HELLINGER, J. W.

A survey of the political, economic, social and intellectual development of the people of the United States from the founding of Britain's colonies in North America through the American Civil War.

HY. 246.—United States History, 1865 to the Present. 3 credits.
10:30 Daily PEA 112 CAVE, A. A.

Reconstruction, the Age of Big Business, the United States as a world power, World War I, the great depression and the New Deal, World War II and its aftermath will be studied in an interpretative survey.

HY. 371.—Colonial Latin-American History. 3 credits.
9:20 Daily PEA 114 ARNADE, C. W.

A survey of the discovery, exploration, settlement of Latin America; the colonial systems of Spain and Portugal; the economic, social, political, and cultural developments in the colonies; and the Wars of Independence.

HY. 400.—History and The Social Sciences for Teachers. 6 credits.
Prerequisite: Status as an in-service teacher of History or Social Science in the high schools or junior colleges.
8:10 Daily PEA 112 LIU, C. J.
and Five hours to arrange

The problems of history and allied disciplines. For in-service teachers who wish to refresh their background and to become acquainted with new methods, materials and approaches. Lectures, discussions and individual work.

HY. 599.—Special Study in History. 3 credits.
Prerequisite: Permission of the Instructor.
To arrange STAFF

Tutorial or pro-seminar study in various periods or topics within the areas of United States, Latin-America, European (including both Western Europe and Slavic Europe) and Asiatic history. Designed for the advanced student who desires intensive study and individual guidance in historical work for which no course is normally offered, as an extension to basic work already completed in lecture courses and as an introduction to historical method and analysis.

GRADUATE COURSES

HY. 630.—Individual Work. 3 credits.
To arrange STAFF

A reading or research course in such areas of History as are needed by graduate students. May be elected for full credit in subsequent sessions with change of content.

HY. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange STAFF

HY. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange STAFF

INDUSTRIAL ARTS

IN. 330.—Elementary Handcrafts. 3 credits.
8:10-10:20 Daily NRN 304-B MASSEY, H.

Creation of simple projects in such media as leather, textiles, clay, reed, plastics, lineoleum block, metal, wood, and native material.

IN. 331.—Handcrafts. 3 credits.
10:30-12:40 Daily NRN 304-B BERGENGREN, R. F.

Major areas include leather carving and tooling, metal etching, wood carving, pottery, plastics, and textiles.

IN. 440.—Industrial Arts Laboratory. 3 credits.
To arrange NRN 300 MASSEY, H.

For advanced undergraduate students. Extension work in one of the certification areas in industrial arts.

GRADUATE COURSES

IN. 606.—History and Philosophy of Industrial Education. 3 credits.
9:20 Daily NRN 302 BERGENGREN, R. F.

Historical background and educational philosophies with emphasis on modern concepts.

*Credit assigned must be shown on course assignment card.

IN. 653.—Industrial-Technical Resources. 3 credits.
10:30 Daily NRN 302 MEYER, H. K.

A study of resources through visitation, observation, evaluation, and report.

IN. 630.—Individual Work. 3 credits.
To arrange YON 300. BERGENGREN, R. F.

Problems approved by the instructor.

INDUSTRIAL ENGINEERING

IG. 201.—Introduction to Industrial Engineering. 2 credits. Prerequisite: MS. 106.
10:30 Daily ENG 343

The analytical engineering approach as applied to problems encountered in modern industry in coordinating manpower, materials, equipment and methods. Orientation in industrial engineering responsibilities and opportunities in industry and the community.

IG. 371.—Job Analysis and Evaluation. 2 credits. Prerequisite: Upper Division Classification.
9:20 M T W Th ENG 324

Analysis of the mental and physical requirements, responsibilities and working conditions of jobs and the several systems of determining the relative worth of jobs. Wage determination. Job evaluation, plan installation and maintenance. Merit rating.

IG. 460.—Engineering Economy. 3 credits. Prerequisite: Engineering Classification.
7:00 Daily ENG 343

The economic aspect of technical projects; the importance of alternative solutions being selected through economy, intangible and financial analysis stressed. "Will it pay?" and "Can it be financed?" Questions are analyzed from the engineering and management viewpoints. Lectures, discussions, and the solution of problems.

IG. 463.—Specifications, Contracts, Ethics and Industrial Safety. 3 credits.
Prerequisite: Engineering Classification.
Section 1 8:10 Daily ENG 343
Section 2 9:20 Daily ENG 343

Specifications writing for material and construction of engineering projects; advertising and letting of contracts, agreements and contractual relations. Engineering ethics. Organization of safety work in industry; accident causes and legal responsibility of employer and employee.

IG. 472.—Human Engineering. 2 credits. Prerequisite: Engineering Classification.
Section 1 7:00 M T W Th ENG 324
Section 2 8:10 M T W Th ENG 324

Human nature in design and product problems. Consideration of the human element in the design of equipment and processes, as well as human reactions to plant situations.

IG. 699.—Research and Master's Thesis. 0 to 6 credits.*
To be arranged.

INTER-AMERICAN AREA STUDIES

Before a student may begin work toward the M.A. degree he must have had an accredited undergraduate degree with a major in an inter-American field in the Arts and Sciences or the Humanities. Before beginning work toward the doctorate, the student must have the equivalent of a master's degree with an Inter-American major in the Arts and Sciences or the Humanities. The rules of the Graduate School apply to all graduate students in the Inter-American Area Studies program.

*Credit assigned must be shown on course assignment card.

IA. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

IA. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange.

JOURNALISM

JM. 430.—Individual Problems in Journalism. 3 credits. Prerequisite: At least 15 hours of Journalism in the Upper Division and approval of the Director.
To arrange.

Designed for seniors in their graduating semester. Students and the instructor concerned will choose a problem or project which will give the student actual experience in his major field.

JM. 509.—Law of the Press and Radio-TV. 3 credits. Prerequisite: COM. 201 or permission of instructor.
8:10 Daily STA 336 VOGEL, J. B.

How to avoid legal difficulties in journalistic activities, with special attention to provisions of Florida law relating to Journalism and Radio-TV.

JM. 515.—Journalism in Secondary Schools. 3 credits. Prerequisite: Senior standing or permission of the instructor.
2:00-4:00 M W Th STA 223 VOGEL, J. B.

This course is designed for persons who plan to teach Journalism in secondary schools or act as faculty advisers for school newspapers, magazines or yearbooks. It includes a general survey of the editorial, business, publishing and mechanical phases of school publications with emphasis on those aspects which are of particular value to teachers. The course will include field trips and laboratory exercises.

LATIN

LN. 430.—Individual Work. 3 credits.
To arrange AND 3-B BRUNET, J.

LN. 630.—Individual Work. 3 credits.
To arrange AND 3-B BRUNET, J.

LAW

NOTE: The schedule of the College of Law differs in time from that of the other divisions of the University.

LW. 402.—Contracts II. 2 credits.
1:00-2:10 W Th F LAW 104 JONES, E. M.

The effect of various types of non-performance on the rights and duties of parties to a business agreement; assignability of contracts; rights of third-party beneficiaries.

LW. 404.—Criminal Law & Procedure II. 2 credits.
10:40-11:50 M T W LAW 201 CLARK, V. W.

A continuation of LW 403. Also: defenses in criminal prosecutions; Federal Rules of Criminal Procedure and their construction.

LW. 412.—Torts II. 3 credits.
8:00-9:10 Daily LAW 203 MALONEY, F. E.

Negligence: early developments, standard of care, duty to act, functions of judge and jury, res ipsq loquitur, proximate cause, defenses, measure of damages; liability of owners and occupiers of land; relationship of tort and contract liability; misrepresentation.

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*Credit assigned must be shown on course assignment card.

LW. 505.—State & Local Taxation. 2 credits.
1:00-2:10 W Th F LAW 201 CLARK, V. W.

Nature and purposes of federal and state taxation; comparison of property and excise taxes; tax jurisdiction; assessment procedures; methods of collecting taxes; remedies of taxpayers for illegal taxation.

LW. 506.—Estate & Gift Taxation. 2 credits.
9:20-10:30 M T W LAW 203 OKUN, J.

Elements of federal tax procedure; fundamentals of federal estate and gift taxation; techniques of federal tax research.

LW. 509.—Acquisition of Real Property. 3 credits.
8:00-9:10 Daily LAW 104 DAY, J. W.

The real estate contract, adverse possession; adverse user; recording acts; deeds and their execution; covenants for title; after-acquired titles; covenants running with the land; creation of easements and profits; licenses.

LW. 554.—Estates & Trusts II. 2 credits.
10:40-11:50 M T W LAW 104 PLAGER, S. J.

A continuation of LW 410. Protection of the family of the transferor; admissibility and effect of extrinsic evidence; ademption, lapse and satisfaction; revocation of wills; termination of trusts.

LW. 572.—Domestic Relations. 2 credits.
9:20-10:30 Th F LAW 104
3:40-4:50 Th LAW 104 GLICKSBERG, M.

Nature of contract to marry and of marriage; requisites for validity; annulment doctrines; divorce; causes, grounds, defenses, jurisdiction; economic and tort relations between spouses and parent and child.

LW. 574.—Advanced Equity. 2 credits.
2:20-3:30 W Th F LAW 104 HOYT, B. P.

Specific performance: nature of jurisdiction, the statute of frauds, part performance; rescission and reformation; equitable relief against unjust situations at law, including interpleader, accounting, bills quia timet, bills of peace, and class suits.

LW. 605.—Income Taxation. 2 credits.
8:00-9:10 W Th F LAW 304 FREELAND, J. J.

The fundamentals of federal income taxation; techniques of federal tax research.

LW. 607.—Pre-trial and Trial Procedure. 2 credits.
1:00-2:10 M T W LAW 120 FARRELL, J. R.

Pre-trial procedure; depositions; discovery; trials by court or by jury; dismissal of actions; motion for directed verdict; new trials.

LW. 609.—Future Interests. 3 credits.
10:40-11:50 Daily LAW 203 FENN, H. A.

A study of testamentary and inter vivos transmissions of mixed assets to achieve defined results through differing periods of time and circumstance: conditional estates; gifts to classes; powers; rule against perpetuities; restraints on alienation.

LW. 612.—Legal Ethics. 1 credit.
8:00-10:00 p.m. T To arrange MAUTZ, R. B.

Responsibilities of the legal profession; Canons of Ethics of the American Bar Association; organization of the bar; current problems and activities of the legal profession.

LW. 632.—Creditors' Rights. 3 credits.
8:00-9:10 Daily LAW 201 KRASTIN, K.

Alternative remedies available to the unsecured creditor; conveyances in fraud of creditors; state insolvency proceedings and adjustment by agreement between debtor and creditors; the Federal Bankruptcy Act.

LW. 642.—Federal Jurisdiction. 2 credits.
10:40-11:50 Th F LAW 104
3:40-4:50 F LAW 104 FARRELL, J. R.

Federal judicial system; civil jurisdiction; limitations on jurisdiction; application of state law; exclusive jurisdiction; concurrent jurisdiction; federal questions; diversity of citizenship; collusion among parties; judicial re-arrangement of parties; jurisdictional amount; joinder of separate claims; removal of suits from state courts; separable controversies; ancillary proceedings.

LW. 653.—Mortgages. 2 credits.
8:00-9:10 M T LAW 304
3:40-4:50 T LAW 104 HOYT, B. P.

Real property mortgages: problems of creation; assignment; priorities; rights and duties of the parties; merger; foreclosures.

LW. 661.—Administrative Law. 2 credits.
1:00-2:10 Th F LAW 104
3:40-4:30 M LAW 104 OKUN, J.

Analysis of the administrative process with emphasis on the reason for and validity of delegation; constitutional, statutory, judicial and agency-made rules of administrative procedure; methods and scope of judicial review of administrative action.

LW. 667.—Trade Regulations. 2 credits.
2:20-3:30 M T LAW 104
3:40-4:50 W LAW 104 KENDALL, A. V.

Common law and statutory regulation of trade and industry; the restraint of trade and anti-trust laws.

LW. 668.—Unfair Trade Practices. 2 credits.
9:20-10:30 Th F LAW 203
3:40-4:50 Th LAW 203 KENDALL, A. V.

Unfair business practices at common law and under state and federal statutes; trade marks and trade names; false advertising; price discrimination; miscellaneous business torts.

LW. 671.—Admiralty. 2 credits.
2:20-3:30 W Th F LAW 201 PLAGER, S. J.

Origin of admiralty jurisdiction; waters and craft; laws affecting maritime affairs; sovereign immunity; maritime liens; seamen's rights; carriage of goods; charter parties; towage; pilotage; salvage; general average; collisions, navigation rules, limitation of liability; marine insurance.

LW. 679.—Restitution. 2 credits.
9:20-10:30 M T W LAW 104 JONES, E. M.

Restitutionary remedies at law and in equity, including quasi contract, equitable accounting, subrogation, constructive trust, and equitable lien; choice of remedies; restitution for benefits conferred through mistake, fraud, duress, or under contracts that are substantially unperformed, impossible to perform, or illegal.

LW. 684.—Federal Tax Seminar. 2 credits.
1:00-2:10 M T W LAW 203 FREELAND, J. J.

Advanced problems in federal income taxation.

LW. 690.—Law Review. 1 credit.
To arrange GLICKSBERG, M.

Research, writing and editorial work in connection with the publication of University of Florida Law Review. Limited to students who have completed LW 408 (or qualified transfer students) and whose average in all law courses attempted is at least 2.0 at each time law review work is undertaken.

LIBRARY SCIENCE

LY. 301.—Introduction to Library Materials. 3 credits.
9:20 Daily LIB 454 FRANCIS, E. S.

Principles and methods of evaluating and selecting books and other library materials and their use for reference and instructional purposes.

LY. 304.—Organization of Library Materials. 3 credits.
10:30 Daily LIB 454 YOUNGS, M. A.

Classroom and laboratory practice in the basic procedures of acquisition, preparation, and processing of materials for library service in relation to the school and other agencies which the library serves.

LY. 321.—School Library Administration. 3 credits.
11:40 Daily LIB 454 FRANCIS, E. S.

Study of effective organization and administration of the school library through which the librarian contributes to the development of the total school program.

MANAGEMENT AND BUSINESS LAW

MGT. 271.—Principles of Management. 3 credits.
10:30 Daily MAT 216 diROCCAFERRERA, G. M.

Basic fundamentals of management underlying solution of problems of organization and operation of business enterprise. Application of these fundamentals to specific fields of industrial management. Not open to students with 4BA classification.

MGT. 373.—Personnel Management. 3 credits.
10:30 Daily MAT 111 OLIVER, C.

Comparison of and critical evaluation of public and private personnel practices and techniques of recruiting, selecting, transferring, promoting, classifying and training workers. Consideration of organization, policies and procedures of managing men.

MGT. 401.—BUSINESS LAW. 3 credits.
9:20 Daily MAT 11 GAITANIS, L. A.

Introduction to study of business law. Contracts; negotiable instruments; sales.

MGT. 402.—Business Law. 3 credits. Prerequisite: MGT. 401.
10:30 Daily MAT 11 GAITANIS, L. A.

Personal property; bailments; carriers; corporations; partnership; agency.

MGT. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

MARKETING

MKG. 231.—Principles of Marketing. 3 credits. Prerequisite: ES. 201.
8:10 Daily MAT 113 THOMPSON, R. B.

The institutions and methods developed for carrying on trade operations; retail and wholesale agencies; elements of marketing efficiency; the cost of marketing; price maintenance; unfair competition; the relation of the government to marketing. Not open to students with 4BA classification.

MKG. 233.—Salesmanship. 3 credits.
11:40 Daily MAT 113 GOODWIN, F.

An introduction to selling. Analysis of types, stages and problems of psychology of sale situations. Not open to students with 4BA classification.

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*Credit assigned must be shown on course assignment card.

MKG. 333.—Advertising. 3 credits.
9:20 Daily MAT 113 YODER, L. C.

A comprehensive guide to the planning and preparation of modern advertising in all of its phases.

MKG. 437.—Retailing. 3 credits. Prerequisite: MKG. 231.
10:30 Daily MAT 115 YODER, L. C.

The fundamentals of retailing; problems, policies, trends and procedures in retail distribution.

MKG. 459.—Field Work in Marketing. Variable credit.
To arrange STAFF

Up to three credit hours for weekly reports and a final report on problems as they arise in a full time three months period of work in Sales, Retailing, Advertising, Wholesaling, Credit and Collections, Market Research, or other work in Marketing undersupervision of an approved employer. Open only to students majoring in Marketing, Sales, Retailing, or Advertising curricula only before the last term on the campus, only after completion of a course in the principles of the subject to be practiced, and only with written permission from a sponsoring professor. Complete course regulations may be secured from sponsoring professor. All registrations in this course are subject to these regulations.

MKG. 531.—Marketing Principles and Institutions. 3 credits.
10:30 Daily MAT 113 THOMPSON, R. B.

A descriptive and analytical approach to the study of marketing institutions and functions. Consideration of buying motives and habits; product policy; selection of channels of distribution; personal selling and advertising programs; pricing; and the relationship of government to marketing activities. Required of all candidates for the Master of Business Administration degree who have not had a basic marketing course.

GRADUATE COURSES

MKG. 630.—Individual Work. 3 credits. Prerequisite: Permission of Department.
To arrange STAFF

A reading and/or research course in the several areas of marketing as needed by graduate students. May be elected for full credit in subsequent semesters with change of content.

MKG. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

MATHEMATICS

MS. 105.—Basic Mathematics. 4 credits. Prerequisite: C-42, except for the superior group in mathematics.
(Register for one section only.)
Section 1 7:00 Daily and 2:00 M W WAL 308
Section 2 8:10 Daily and 2:00 T Th PEA 4
Section 3 9:20 Daily and 2:00 M W PEA 4

In place of the traditional college algebra, trigonometry and analytic geometry in succession, this course offers a sequence of topics including much of the above and some calculus. Thus the student will obtain early a working knowledge of such mathematics as is basic to the study of the sciences and other subjects. The choice of material is so made as to present mathematics as an integrated whole rather than as a series of segregated topics.

MS. 106.—Basic Mathematics. 4 credits. The second half of the course MS. 105-106.
(Register for one section only.)
Section 1 7:00 Daily and 2:00 M W WAL 202
Section 2 8:10 Daily and 2:00 T Th WAL 308
Section 3 9:20 Daily and 2:00 T Th WAL 209

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*Credit assigned must be shown on course assignment card.

MS. 208.—Business Mathematics. 3 credits. Prerequisite: C-42, except for the superior group in mathematics. Not open to students who have had MS. 308, and not counted toward a mathematics major in the College of Arts and Sciences.

10:30 Daily WAL 307

Arithmetical, and some algebraic, treatment of the mathematical problems involved in business. Simple interest. Simple, bank, and trade discounts. Promissory notes, drafts, compound interest and related problems, partial payments, annuities, amortization, and other topics of the mathematics of business are treated.

MS. 310.—Statistical Methods. 3 credits. Prerequisite: MS. 325 or equivalent.

10:30 Daily WAL 209

Presents the bases of the various procedures as well as practical computational methods. The statistics of frequency distributions; moments; normal curve; curve fitting; regression and correlation analysis. Introduction to Chi-square. Student's t and the F distributions.

MS. 325.—Advanced General Mathematics. 3 credits. Prerequisite: C-42.

7:00 Daily WAL 209

Continuation of the arithmetic and algebraic topics of elementary general mathematics with new material added. The deeper meaning of laws underlying number operations. Some properties of positive whole numbers. Higher functional analysis. Valuable to prospective teachers of mathematics and others who wish to continue some mathematical work without becoming specialists in pure mathematics.

MS. 326.—Advanced General Mathematics. 3 credits. Prerequisite: C-42.

12:50 Daily WAL 207

The facts and processes of elementary Euclidean geometry, with the study of generalizations of theorems and the manner in which geometry, algebra, trigonometry and analytic geometry are related. The nature of proof. Types of proof. Problems in geometric constructions. Inequalities. The locus idea treated both synthetically and analytically. Valuable to prospective teachers and to other students majoring in mathematics.

MS. 327.—Advanced General Mathematics. 3 credits. Prerequisite: MS. 325.

11:40 Daily WAL 102

The general processes pursued in MS 325 are continued, with special emphasis on analysis. The analytic treatment is applied extensively to algebraic, exponential, logarithmic, geometric, and trigonometric functions. The informal notions of the derivative and integral introduced in MS 325 are applied throughout the course and extended as needed. Mathematics is presented throughout as a single whole, both in its effect on the material side of civilization and as a creative force in its own right. The sequence C-42, MS 325, and MS 327 constitutes a cultural approach to formal courses in the calculus.

MS. 350.—Mathematics for Junior High School Teachers. 3 credits.

8:10 Daily PEA 10

This course is for in-service teachers of mathematics in grades 7 through 9, and is designed for those who wish either to expand their background in mathematics or to secure refresher materials for better teaching.

MS. 353.—Differential Calculus. 4 credits. Prerequisite: MS 106 or 327.

(Register for one section only.)

Section 1 8:10 Daily and 2:00 M W WAL 307
Section 2 9:20 Daily and 2:00 T Th WAL 211
Section 3 10:30 Daily and 2:00 T Th WAL 202

Differentiation and integration. Typical problems solved by these methods are calculation of rates of change, computation of areas, volumes, moments of inertia, energy, power, and many others. Various advanced topics of special value to engineers and scientists. Open to University College students.

MS. 354.—Integral Calculus. 4 credits. The second half of the course MS. 353-354. Prerequisite: MS. 353 or its equivalent.
(Register for one section only.)

Section 1	8:10 Daily and 2:00 M W	WAL 209
Section 2	9:20 Daily and 2:00 T Th	WAL 307
Section 3	10:30 Daily and 2:00 M W	WAL 211

MS. 400.—Mathematics for Senior High School Teachers. 3 credits.
Prerequisite: One full year of college mathematics and experience in teaching mathematics at the secondary level.
8:10 Daily PEA 11

This is designed for in-service teachers who desire either to refresh themselves in the standard materials of senior high school mathematics or to obtain enrichment background in the more recent subject-matter materials.

MS. 411.—Survey of Modern Algebra. 3 credits. Prerequisite: MS. 106 or 327.
11:40 Daily WAL 207

An introduction to the simpler concepts of higher algebra. Number system, number theory, groups, rings, ideals, integral domains, fields, matrices, etc.

MS. 420.—Differential Equations. 3 credits. Prerequisite: MS. 354.
7:00 Daily WAL 213

The classification, solution and application of various equations which contain expressions involving not only variables, but also the derivatives of these variables. Not open for credit to students who have taken MS 521.

MS. 431.—College Geometry. 3 credits. Prerequisite: MS. 326 or its equivalent.
7:00 Daily WAL 211

The use of elementary methods in the advanced study of the triangle and circle. Special emphasis on solving original exercises. Valuable to prospective high school and college geometry teachers.

COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

MS. 501.—Introduction to Mathematical Thought. 3 credits.
11:40 Daily WAL 211

The anatomy of mathematics. The axiomatic method. Theory of sets. Transfinite arithmetic. The linear continuum and the real number system. Groups and their significance. Generalizations of classical mathematics. Mathematical philosophies.

MS. 510.—Mathematical Statistics. 3 credits. Prerequisite: MS. 354.
10:30 Daily WAL 301

A study of the binomial distribution. DeMoivre-Laplace theorem, distribution functions, and moment-generating functions; frequency distribution of two variables; development and some applications of the Chi-square, Student's t and F distributions.

MS. 521.—Higher Mathematics for Engineers and Physicists. 3 credits.
Prerequisite: MS. 354. The first third of the course MS. 521-522-523. Not open for credit to students who have taken MS. 420.
7:00 Daily WAL 301

Ordinary differential equations with emphasis on numerical methods and series solutions; the Laplace transform; boundary value problems; orthogonal functions. The methods of vector analysis and special topics of partial differential equations, and the functions of a complex variable with applications.

MS. 522.—Higher Mathematics for Engineers and Physicists. 3 credits.
Prerequisite: MS. 521 or MS. 420. The middle third of MS. 521-522-523.
9:20 Daily WAL 202

MS. 523.—Higher Mathematics for Engineers and Physicists. 3 credits.
Prerequisite: MS. 420, or 423, or 521. The last third of MS. 521-522-523.
8:10 Daily WAL 202

MS. 551.—Advanced Topics in Calculus. 3 credits.
9:20 Daily WAL 301

Topics of advanced nature selected from the calculus, including partial differentiation, Taylor's theorem, infinite series, continuation of simple multiple integrals, line and surface integrals, and Green's theorem.

MS. 561.—Introduction to Topology. 3 credits. Prerequisite: MS. 354.
8:10 Daily WAL 301

Set theory; the real line, topological spaces, topological notions; Heine-Borel Theorem; mappings, continuous and homeomorphisms; Hausdorff spaces; metric spaces; the Euclidean spaces.

GRADUATE COURSES

MS. 602.—Vector Analysis. 3 credits.
10:30 Daily WAL 102

The algebra and calculus of vectors in two and three dimensions. Applications to problems in physics and engineering.

MS. 607.—Tensor Analysis. 3 credits.
11:40 Daily WAL 202

A study of transformations of coordinates, matrices, and tensors. The calculus of tensors. Special attention to the application of tensors in differential geometry, differential equations, problems from physics, and n-dimensional Euclidean, Riemannian, and other spaces.

MS. 613.—Theory of Groups of Finite Order. 3 credits.
7:00 Daily PEA 4

Introduction to the group concept; a treatment of pure group-theory with numerous examples and a few of the simpler applications.

MS. 624.—Synthetic Projective Geometry. 3 credits.
9:20 Daily WAL 213

Pure geometry, dealing primarily with properties unaltered by the processes of projection and section; principal theorems involved; theory of poles and polars; ruled surfaces of second order; the theory of involution.

MS. 640.—Fourier Series. 3 credits.
10:30 Daily WAL 308

The application of trigonometric series to the solution of boundary-value problems of mathematical physics. Solutions are obtained to partial differential equations relating to the flow of heat, conduction of electricity and vibrating strings.

MS. 668.—History of Elementary Mathematics. 3 credits.
10:30 Daily WAL 207

A survey of the development of mathematics through the calculus, with special emphasis on the changes of the processes of operation and methods of teaching. No specific textbook is followed, but a number of works are used as reference.

MS. 699.—Research and Master's Thesis. 0 to 6 credits.*
To be arranged.

MS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To be arranged.

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*Credit assigned must be shown on course assignment card.

MECHANICAL ENGINEERING

ML. 381.—Elementary Heat Power. 3 credits. Prerequisites: ML. 354, PS. 206.
8:10 Daily ENG 320

The fundamentals of steam power plants, internal combustion engines, and compressed air machinery.

ML. 384.—Metallography and Heat Treatment. 3 credits. Prerequisite: CG. 361.
8:10 M T Th F ENG 345
Laboratory: 12:50 to 4:10 T Th ENG 550

The crystal structure of ferrous and non-ferrous metals and their alloys; the iron-carbide diagram, heat treatment, and use of steel and cast iron.

ML. 385.—Thermodynamics I. 3 credits. Prerequisites: MS. 354, PS. 206, CY. 218.
10:30 Daily ENG 418

Energy equations and availability of energy; gases, vapors, and mixtures; engineering applications in flow of fluids, vapor power cycles.

ML. 387.—Mechanical Laboratory I. 1 credit. Corequisite ML. 385.
12:50 to 5:30 M W WAL 103

The preparation of engineering reports, computation aids, the measurement of area, time, speed, pressure, temperature and gas flow.

ML. 489.—Manufacturing Operations I. 3 credits. Prerequisite: EM. 366. Corequisite: EM. 367.
(Register for the Lecture Section and One Laboratory Section)
Lecture Section 1 10:30 M T W Th ENG 320
Laboratory Sections:
Section 11 12:50 to 4:10 T Th F 103
Section 12 12:50 to 4:10 M W F 103

Machinery, materials and processes used in manufacturing.

GRADUATE COURSES

ML. 683.—Mechanical Research I. Variable credit. Prerequisite: ML. 483-484.
To arrange.

Research projects in Mechanical Engineering.

ML. 689.—Advanced Mechanical Laboratory I. 3 credits. Prerequisite: ML. 483-484.
To arrange.

Experimental projects in Mechanical Engineering.

ML. 699.—Research and Master's Thesis. 0 to 6 credits.*

MEDICAL SCIENCES

MED. 605.—Research Methods in Anatomy. 1 to 3 credits per semester. Prerequisite: MED. 501, MED. 503.

The student acquires proficiency in one or more of the research techniques used in histochemistry, radiation biology, experimental embryology, teratology, experimental neurology or electron microscopy under direct supervision of an experienced staff member.

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*Credit assigned must be shown on course assignment card.

MED. 615.—Research Methods in Biochemistry. 12 laboratory hours. 2 to 4 credits per semester. Prerequisite: MED. 511 or by special arrangement.

An introduction to biochemical research in which the student acquires proficiency in one or more of the research techniques used in physical biochemistry, intermediary metabolism, radioisotopes, etc., under the direct supervision of one or more staff members.

MED. 627.—Research Methods in Physiology. 1 to 4 credits.

The special needs of each individual student will be met by conferences and laboratory work.

MED. 630.—Research in Medical Sciences: Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology. 1 to 6 credits.

Graduate students can obtain credit toward a degree for project research in any department listed. This work will supplement thesis research in the major department.

MED. 699.—Research and Master's Thesis. 0 to 6 credits.
Anatomy, Biochemistry, Microbiology, Physiology.

MED. 799.—Research and Doctoral Dissertation. 1 to 6 credits.
Anatomy, Biochemistry, Microbiology, Physiology.

MUSIC

***MSC. 21.—Beginning Piano.** 1 credit.
DANBURG, R. L., LAWRENSON, R. E.

***MSC. 25.—Beginning Voice.** 1 credit.
KEISTER, E. J., STERRETT, D. E.

***MSC. 27.—Beginning Strings.** 1 credit.
PREODOR, E. C.

***MSC. 35.—Beginning Woodwind.** 1 credit.
BOLLES, R. S.

***MSC. 43.—Beginning Brass.** 1 credit.
POOLE, R.

All Applied Music Courses, except Organ and Percussion, as outlined in the University of Florida General Catalogue will be offered during the Summer Session of 1959.

MSC. 160.—Music Skills. 3 credits.
8:10 Daily R 201 STERRETT, D. E.

Fundamentals of music needed by the classroom teacher for teaching music in the elementary school.

MSC. 161.—Music for the Elementary Child. 3 credits. Prerequisite: MSC. 160 or equivalent.
9:20 Daily R 201 SCHMIDT, D. T.

MSC. 161 is a state certification requirement for teaching in the elementary schools.
Principles, problems, and procedures relative to the teaching of music by the classroom teacher in the elementary school.

MSC. 170.—University Orchestra. 1 credit.
7:30 p.m. M, 4:20 Th R 144 PREODOR, E. C.

Study and performance of standard orchestra literature.

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*Credit assigned must be shown on course assignment card.
**Students registered for Applied Music will be assigned instructor, time and place of meeting at the registration desk.

MSC. 171.—Choral Union. 1 credit.
3:10 Daily R 122 KEISTER, E. J.

Study and performance of large choral works. A mixed chorus.

MSC. 174.—University Band. 1 credit.
4:20 M T W F R 144 POOLE, R.

Study and performance of standard band literature.

MSC. 210.—Music Appreciation. 2 credits.
10:30 M T Th F R 201 DANBURG, R. L.

A study, through group listening and discussion, to expand the student's understanding of music literature.

MSC. 315.—Latin-American Music. 2 credits.
2:00 M T Th F R 202 STERRETT, D. E.

Representative works of the leading composers of Latin-America. Emphasis is placed on appreciation and understanding rather than on formal analysis.

MSC. 363.—Projects and Problems in Music. 3 credits.
To arrange R 117 DANBURG, R. L.

For the advanced student who wishes some help in the problems of teaching music in an individual situation.

MSC. 364.—Projects and Problems in Music. 3 credits. The second half of course MSC. 363-364.
To arrange R 106 BOLLES, R. S.

MSC. 405.—Conducting. 3 credits. Prerequisite: Eight credits in one area of applied music or permission of the instructor.
10:30 Daily R 202 PREODOR, E. C.

Basic techniques of choral and instrumental conducting.

MSC. 460.—Band Materials Laboratory. 3 credits.
12:50 Daily R 202 POOLE, R.

Study and performance of the repertoire used in school bands.

MSC. 462.—Elementary School Materials Laboratory. 3 credits. Prerequisite: MSC. 102.
11:40 Daily R 201 SCHMIDT, D. T.

The examination and evaluation of materials in the elementary music program. Also the acquisition of a repertoire through performance, and through conducting and accompanying.

NUCLEAR ENGINEERING

NR. 622.—Special Topics in Nuclear Engineering. 1 to 6 credits.
To arrange.

Laboratory, lectures or conferences covering specially selected topics in nuclear engineering.

NR. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

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*Credit assigned must be shown on course assignment card.

ORNAMENTAL HORTICULTURE

GRADUATE COURSE

OH. 699.—Research and Master's Thesis. 0 to 6 credits.*
To be arranged 115 MCC JOINER, J. N.

PHARMACEUTICAL CHEMISTRY

GRADUATE COURSES

PCY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

PCY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

PHARMACOGNOSY

PGY. 222.—Practical Pharmacognosy. 3 credits.
8:10 Daily LEI 432 JOHNSON, C. H.

GRADUATE COURSES

PGY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

PGY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

PHARMACOLOGY

PLY. 301.—Applied Human Anatomy for Pharmacists. 4 credits.
10:30 M T Th F LEI 432 MALEWITZ, T. D.
Lab. 2:00-5:20 M T W Th LEI 314

PLY. 405.—Introductory Pharmacology. 3 credits.
12:50 Daily LEI 324 VOSS, E.

GRADUATE COURSES

PLY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

PLY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

PHARMACY

PHY. 106.—Pharmaceutical Calculations. 2 credits.
10:30 M T Th F LEI 324 BECKER, C. H.

PHY. 224.—Galenical Pharmacy. 3 credits.
9:20 M T Th F LEI 324 BECKER, C. H.
Lab. 9:20-12:40 W and 12:50-4:10 F LEI 306

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*Credit assigned must be shown on course assignment card.

PHY. 456.—Pharmaceutical Specialties. 3 credits.
11:40 M T Th F LEI 324 GRAMLING, L. G.
Lab. 9:20-11:30 W and 2:00-4:10 F LEI 314

PHY. 462.—Prescriptions and Dispensing. 4 credits.
(Register for the lecture and one laboratory section.)
Lecture Section 1: 8:10 M T Th F LEI 324 HUSA, W. J.
Laboratory Sections:
Section 11: 9:20-1130 M T Th F LEI 306
Section 12: 2:00-4:10 M T W Th LEI 306

GRADUATE COURSES

PHY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

PHY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

PHILOSOPHY

PPY. 201.—Problems of Philosophy. 3 credits.
9:20 Daily AND 104 BARTLETT, G. R.

A consideration of some of the major problems of philosophy—ethics, philosophy of science, theory of knowledge, philosophy of art, philosophy of religion and metaphysics. Selections from the writings of important philosophers, ancient and modern, with emphasis upon the modern, will be read.

PPY. 430.—Individual Work. 3 credits.
Prerequisite: 12 hours of philosophy, and permission of the departmental adviser.
To be arranged STAFF

Provision will be made for advanced undergraduate students who desire to supplement the regular courses by individual reading or investigation under guidance. Students will be helped to plan a definite program, and will meet a member or members of the departmental staff in frequent conferences. With change of content, PPY 430 may be elected for full credit in subsequent sessions.

GRADUATE COURSES

PPY. 630.—Individual Work 3 credits.
Prerequisite: Approval of the departmental adviser.
To be arranged STAFF

Provisions will be made for graduate students who desire to supplement the regular courses by individual reading or investigation under guidance. Students will be helped to plan a definite program, and will meet a member or members of the departmental staff in frequent conferences. With change content, PPY 630 may be elected for full credit in subsequent sessions.

PPY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To be arranged.

PHYSICAL EDUCATION, HEALTH AND ATHLETICS

PHA. 251.—Square and Social Dance. 2 credits.
12:50 Daily FLG 210 EDMONDSON, C.

Basic skills in square and social dancing.

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*Credit assigned must be shown on course assignment card.

PHA. 282.—Basketball. 2 credits.
9:20 Daily FLG 208 CHERRY, H. S.

Skills, rules, coaching methods, offensive and defensive team play in basketball.

PHA. 285.—Individual and Dual Sports for Men. 2 credits.
2:00 Daily FLG 208 REHLING, C. H. and LEILICH, R. E.

Skills, rules, strategies and teaching methods in tennis, handball, golf, and other individual and dual activities.

PHA. 286.—Aquatics. 2 credits.
8:10 Daily FLG 208 ECKDAHL, J. P.

Skills, knowledges and teaching methods in swimming and diving.

PHA. 325.—Conduct of Playgrounds and Indoor Centers. 3 credits.
11:40 Daily FLG 224 LEILICH, R. E.

For community recreation workers, school personnel and volunteers interested in the operation of playground and indoor center programs. Physical facilities, layout and equipment, personnel, activities, program planning and problems of operation and administration.

PHA. 361.—Elementary School Health Program. 3 credits.
(Register for one section only.)
Section 1 9:20 Daily FLG 224 NAGLE, F. J.
Section 2 10:30 Daily FLG 224 BOYD, C. A.
Section 3 11:40 Daily FLG 222 NAGLE, F. J.

Principles of developing the health program with procedures for protecting and improving the health of the elementary school child through: home-school-community resources and cooperation; health screening and followup; use of school plant health services; selection and use of health instructional materials, records and reports in providing health experiences at various levels of the elementary school; integration and evaluation of health instruction.

PHA. 369.—School Safety Education. 2 credits.
10:30 M T W Th FLG 208 BENZ, W. P.

General safety content as applied in elementary and secondary school programs. Methods and materials for teaching safety, and the organization of safety education programs.

PHA. 373.—Teaching Physical Education in the Elementary School. 3 credits.
(Register for one section only.)
Section 1 8:10 Daily FLG 222 MC GRIFF, J.
Section 2 9:20 Daily FLG 222 STEVENS, B. K.
Section 3 10:30 Daily FLG 222 EDMONDSON, C.

The program of physical education activities for the elementary school including small group play, large group play, directed play, rhythmic activities and team games, together with methods and procedures for conducting such a program.

PHA. 376.—First Aid and Injuries. 2 credits.
Prerequisite: Limited to Upper Division students.
8:10 M T W Th FLG 210 SOLLEY, W. H.

Standards and accepted principles of first aid. Dressings and bandages, wounds and their care, artificial respiration, poisons, fractures and dislocations, burns, transportation of the injured, and other common emergencies.

PHA. 421.—Driver Education and Traffic Safety. 3 credits.
Prerequisite: Limited to Upper Division students who hold a valid driver's license.
8:10 Daily FLG 224 BENZ, W. P.

Prepares teachers to conduct driver education and training courses on the secondary school level. Methods and materials concerned with the psychophysical limitations of drivers, driving practices, automobile construction, manipulation and maintenance, pedestrian protection, road training, and skill tests.

GRADUATE COURSES

PHA. 601.—Interpretations of Physical Education. 3 credits.
9:20 Daily FLG 309 SALT, E. B.

The broad philosophical bases upon which the modern program of physical education is predicated. Biological, phychological, sociological and educational implications in interpreting and delineating the function of physical education in contemporary democratic society.

PHA. 606.—Individual Work. 3 credits.
Prerequisite: PHA 605.
To arrange FLG 303 BOYD, C. A. and STAFF

For students who wish to pursue individual research projects under faculty guidance. Permission to register is dependent upon approval of a written statement of the proposed project by the project advisor and approval by the Dean.

PHA. 618.—The College Physical Education Program. 3 credits.
8:10 Daily FLG 309 STEVENS, B. K.

A study of the philosophy, program content, administration and methods of conducting the required, intramural and professional preparation programs of physical education in colleges and universities.

PHA. 620.—Problems in the Administration of Athletics. 3 credits.
10:30 Daily FLG 309 CHERRY, H. S.

Problems of administering the interscholastic athletic program. The place of athletics in education; various methods of organizing the programs; establishment of policies relating to staff, budget, equipment, facilities, program, awards, public relations, membership in conferences, and legal liability. The intramural athletic program.

PHA. 633.—Problems in Physical Education. 3 credits.
Prerequisite: PHA 605.
11:40 Daily FLG 309 SALT, E. B.

Contemporary problems in physical education designed to broaden the student's understanding of principles and current practices as they relate to programs in this field.

PHYSICS

PS. 201.—General Physics. 3 credits. The first half of the course PS. 201-202.
Prerequisite: C-42.
(Register for the Lecture Section, a Discussion Section, and for PS. 207.)
Lecture Section 1: 7:00 T Th, 11:40 F PHY 133
Discussion Sections:
Section 11 7:00 M W F PHY 230
Section 12 7:00 M W F PHY 239

General Physics for science students.

PS. 202.—General Physics. 3 credits.
(Register for the Lecture Section, a Discussion Section, and for PS. 208.)
Lecture Section 1: 10:30 T Th, 12:50 F PHY 133
Discussion Sections:
Section 11 10:30 M W F PHY 240
Section 12 10:30 M W F PHY 239

PS. 205.—General Physics. 3 credits. The first half of the course PS. 205-206.
Prerequisites: MS. 105-106. Corequisite: MS. 353.
(Register for the Lecture Section, a Discussion Section, and for PS. 207.)
Lecture Section 1: 10:30 M W F PHY 133

Discussion Sections:
Section 11 10:30 T Th, 12:50 F PHY 234
Section 12 10:30 T Th, 12:50 F PHY 232

Theory of mechanics, heat, sound, electricity, and light. Primarily for physics majors and engineering students.

PS. 206.—General Physics. 3 credits. Corequisite: MS. 354.
(Register for the Lecture Section, a Discussion Section, and for PS. 208.)
Lecture Section 1: 8:10 M W F PHY 133
Discussion Sections:
Section 11 8:10 T Th, 11:40 F PHY 230
Section 12 8:10 T Th, 11:40 F PHY 232

PS. 207.—Laboratory for PS. 201 and PS. 205. 1 credit.
(Register for one section only.)
Section 111: 12:50-3:50 M W PHY 324
Section 112: 12:50-3:50 M W PHY 326
Section 113: 12:50-3:50 T Th PHY 324
Section 114: 12:50-3:50 T Th PHY 326

PS. 208.—Laboratory for PS. 202 and PS. 206. 1 credit.
(Register for one section only.)
Section 111: 12:50-3:50 M W PHY 325
Section 112: 12:50-3:50 M W PHY 327
Section 113: 12:50-3:50 T Th PHY 325
Section 114: 12:50-3:50 T Th PHY 327

PS. 320.—Modern Physics. 3 credits. Prerequisite: 1 year college physics, 1 year calculus.
10:30 Daily PHY 230

The discovery of the electron, X-rays, and radioactivity; the Bohr theory; photo-electric effect; X-rays and their applications; the nucleus; the neutron, the positron, the meson; high voltage production; nuclear reactions, and atomic energy.

PS. 321.—Nuclear Physics. 3 credits. Prerequisite: 1 year college physics, 1 year calculus.
9:20 Daily PHY 230

The elementary theory of the nucleus, nuclear disintegraptions, natural and artificial radioactivity, alpha, beta and gamma rays, neutrons, positrons, deuterons and nuclear fission. The principles of operation of equipment used in nuclear research.

GRADUATE COURSES

PS. 630.—Individual Work. Variable credit.*
To arrange.

Experiments on particular topics of physics, a review of classical experiments, or the development of an assigned experimental problem. The work will be assigned to meet the needs and interests of the particular student.

PS. 699.—Research and Master's Thesis. 0 to 6 credits.*

PS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

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*Credit assigned must be shown on course assignment card.

PLANT PATHOLOGY

Prerequisites to any course in Plant Pathology are Botany 101 and 102. PT. 321 is prerequisite to courses in Plant Pathology except PT. 325, PT. 434, PT. 632, and PT. 634.

PT. 321.—Plant Pathology. 3 credits.
2:00 M W ROL 501 WEBER, G. F.
Laboratory: 3:10 to 5:20 M W and 2:00 to 4:10 T Th ROL 501

Plant diseases caused by mechanical injury, environmental factors, faulty nutrition, viruses, nematodes, parasitic bacteria, fungi, other plants and their control; their economic importance; life cycles and seasonal development of parasitic fungi and bacteria, and the phenomenon of parasitism.

GRADUATE COURSES

Prerequisites: (1) PT. 321 or equivalent. (2) Thirty semester hours in biological sciences, 15 of which should be in botany.

PT. 605.—History of Plant Pathology. 1 credit.
To arrange ROL 409 MULLER, A. S.

A correlation of recorded historical events and the trends and development of plant pathology as an exploration of our current knowledge of plant diseases.

PT. 606.—Plant Pathology Literature. 1 credit.
To arrange ROL 409 MULLER, A. S.

The knowledge of existing and available source material, current technical publications dealing with plant diseases and their evaluation as aids in conducting research.

PT. 607.—Plant Disease Collection. 2 credits. Prerequisite PT. 434.
To arrange ROL 409 MULLER, A. S.

The collection, identification and preservation of plant diseases and fungi, stressing those of economic importance in Florida and those possessing distinctive taxonomic characteristics.

PT. 623.—Advanced Plant Pathology. 3 or 6 credits.*
To arrange ROL 501 WEBER, G. F.

A study of life histories of parasitic organisms in relation to the host plant, environmental factors influencing the development of diseases; all diseases of certain crop plants and specific diseases common to a wide variety of hosts.

PT. 699.—Research and Master's Thesis. 0 to 6 credits.*
ROL 408 WEBER, G. F.

PT. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
ROL 408 WEBER, G. F.

POLITICAL SCIENCE

PCL. 201.—American Federal Government. 3 hours. 3 credits.
10:30 Daily PEA. 201

Basic principles of the Federal Constitution. Civil rights. Political parties and the electoral process. The structure and machinery of the federal government, including the Congress, President, and Judiciary.

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*Credit assigned must be shown on course assignment card.

PCL. 202.—American State and Local Government. 3 hours. 3 credits.
9:20 Daily PEA 202

State constitutions, political parties, and politics. State legislatures, courts, and chief executives. The functions of state governments. City and county government.

PCL. 203.—American Government: Policy and Functions. 3 hours. 3 credits.
Prerequisite: PCL. 201.
11:40 Daily PEA 201

The determination of public policy. Influence of political parties, pressure groups, legislatures, executives, and courts in determining public policy. The functions of government.

PCL. 209.—International Relations. 3 hours. 3 credits.
Prerequisite: C-1 or equivalent.
8:10 Daily PEA 202

The nature of international relations; nationalism, imperialism, militarism, armaments; history of international relations; foreign policies; functions and problems of democracy; international organization; the United Nations.

PCL. 308.—Comparative Government. 3 hours. 3 credits.
Prerequisite: 6 hours of Political Science.
9:20 Daily PEA 201

The government and politics of France, Italy, Germany, and U.S.S.R. Special emphasis on the historical, cultural, social, and economic determinants of current institutions and policies. Constitutions, parties, legislatures, executives, civil service systems, law, and local government. A comparative analysis of the theory and practice of modern totalitarianism.

PCL. 320.—Political Parties. 3 hours. 3 credits.
Prerequisite: 6 hours in Political Science including PCL. 201.
11:40 Daily PEA 202

The composition of American political parties. The distinction between political parties and pressure groups; what groups compose our major parties and our minor parties; businessmen, farmers, white-collar employees, wage-earners, and racial and religious groups in politics; an analysis of party and pressure politics in all sections and states of the United States, with particular attention to the South and Florida.

PCL. 400.—Political Science for Teachers. 3 hours. 3 credits.
8:10 Daily PEA 201

Special course for graduate students in College of Education. Designed for teachers who are in need of: (1) special topics; or (2) certain areas not covered in their general undergraduate work in the social sciences; or (3) needing additional work in certain fields. May be taken more than once when content is different.

PCL. 509.—American Foreign Policy. 3 hours. 3 credits.
Prerequisite: PCL. 209-210 or HY. 245-246.
10:30 Daily PEA 202

The United States in world affairs. Analysis of American foreign policy, past and present, in order to bring out the basic policies and the forces behind these policies.

PCL. 530.—Individual Work. 3 hours. 3 credits.
Time and place to be arranged.

Readings and discussions in advanced topics in political science. Open only to students majoring in political science who need background work in certain areas of political science. Registration only with permission of departmental graduate advisor or department head. May be elected for full credit in subsequent sessions with change of content.

GRADUATE COURSES

PCL. 630.—Individual Work. 3 hours. 3 credits.
Time and place to be arranged.

A reading or research course in such areas of Political Science as are needed by the graduate students. May be elected for full credit in subsequent sessions with change of content.

PCL. 699.—Research and Master's Thesis. 0 to 6 credits.*

PCL. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

POULTRY HUSBANDRY

GRADUATE COURSE

PY. 670.—Advanced Problems in Poultry Production. 1 to 8 credits.*
To be arranged PO HARMS, R. H.

PSYCHOLOGY

PSY. 201.—General Psychology. 3 credits.
8:10 Daily BEN 104 ANDERSON, R. J.

The general topics in the field of psychology. Designed to provide an understanding of human behavior, approached as a natural phenomenon subject to scientific study. The unifying concept is the adaptation of the individual to his physical and social environment.

PSY. 202.—Personality Development. 3 credits.
9:20 Daily FLO 108 HINCKLEY, E. D.

The mechanisms of personality formation, with special emphasis upon the varieties of human adjustment. The more inevitable problems of human life with their normal and abnormal solutions. The origin and modification of behavior. Processes of motivation and adjustment. Development of personality traits. Techniques of mental hygiene.

PSY. 410.—Abnormal Psychology. 3 credits.
10:30 Daily BEN 108 WEBB, W. B.

The principal abnormal phases of behavior, and the ways by which the individual develops abnormal habits of thinking and acting. A survey of the signs of beginning maladjustment and procedures which may be followed to correct these tendencies. Special attention is given to the prevention and treatment of mental disease.

PSY. 509.—Theories of Personality. 3 credits.
8:10 Daily BEN 108 ROBERTSON, M. H.

Basic concepts and findings, techniques of investigation, and survey of contemporary theories of personality.

PSY. 601.—Seminar: Literature in Experimental Psychology. 3 credits.
10:30 Daily BEN 104

A consideration of experimental literature in selected areas of psychology.

PSY. 630.—Individual Work. 3 credits.
To arrange STAFF

A reading or research course in such areas of Psychology as are needed by graduate students. May be elected for full credit in subsequent sessions with change of content.

PSY. 631.—Practice in Intelligence Testing. 3 credits.
9:20 Daily LY 419 ROBERTSON, M. H.

Extensive practice in the administration, scoring, and interpretation of individual intelligence tests.

PSY. 699.—Research and Master's Thesis. 0 to 6 credits.
To arrange STAFF

PSY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.
To arrange STAFF

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*Credit assigned must be shown on course assignment card.

REAL ESTATE

RE. 291.—Real Estate Fundamentals. 3 credits.
8:10 A.M. MAT 105 CURTIS, C. C.

A survey of the principles and practices essential to successful ownership of real property. The aim is to develop a full understanding of the significance of realty as a commodity and to equip the student with the fundamentals essential to successful real estate investment and enterprise. Classroom lectures and problems place emphasis on the legal, economic and technical aspects of real estate ownership and provide background training for those seeking specialization in the fields of real estate law, brokerage, management, appraising and real estate finance. Not open to students with 4BA classification.

RE. 295.—Housing and Home Ownership. 3 credits.
9:20 A.M. MAT 105 CURTIS, C. C.

Concerned with the consumption of real estate and the economic, legal and technical aspects of housing from the point of view of the home owner. Stress is laid on the evolution and limitations of property rights, the role of government in the field of housing, principles of home ownership, home construction, and design, and the vital problem of when and how to buy a home. Not open to students with 4BA classification.

RE. 493.—Real Estate Law. 3 credits.
10:30 A.M. MAT 105 CHACE, J. E.

Necessity of learning when to consult a lawyer; fixtures; easements; land descriptions, land titles and interest; deeds; mortgages; foreclosures; landlord and tenant; taxes and assessments; avoidance of "unauthorized practice of law."

REHABILITATION COUNSELING

RC. 644.—Internship in Rehabilitation Counseling. 6 credits. Prerequisite: The basic courses in rehabilitation counseling and permission of instructor.
To arrange NRN 102 THOMASON, B.

Supervised practice in counseling, case studies, contacts with community social agencies, as well as practicum in specific rehabilitation processes.

RELIGION

RN. 251.—Comparative Religion. 3 credits.
10:30 Daily I 204 CREEL, A. B.

The religions of India, China, the Near East and Europe are compared along general lines.

RN. 341.—The Old Testament in the Light of Today. 3 credits.
9:20 Daily I 204 MC COY, C. S.

An inquiry into the literature and history of the Hebrews as reflected in the Bible.

RN. 430.—Individual Work. 3 credits. Prerequisite: 12 hours of Upper Division Humanities.

SCHOOL ART

SCA. 301.—Creative School Art. 3 credits.
2:00-4:10 M W F NRN 109 FARRIS, M. L.

Study and practice in types of creative art work suitable for children of different age levels. Emphasis will be on painting.

SCA. 334.—School Art Design. 3 credits.
10:30-12:40 M W F NRN 109 FARRIS, M. L.

To help teachers understand design in art work of children; crafts and graphics.

SOCIAL STUDIES

SCL. 301.—Social Studies in the Elementary School. 3 credits.
9:20 Daily NRN 203 TISON, J.

Study of the selection, organization, planning, developing, and evaluating of experiences which help children become better citizens in a democracy. Exploration of the role of social studies and of other opportunities in the school curriculum for developing needed social learnings. Study of materials.

SOCIOLOGY

SY. 201.—Sociological Foundations of Modern Life. 3 credits.
Prerequisite: C-11 or equivalent.
8:10 Daily PEA 308 GRIGSBY, S. E.

Culture and its relations to specific social problems. The social institutions of American life today in relation to population changes, ethnic groups, and major problems of social policy. The social consequences of technological change. Techniques of social control in the metropolitan world.

SY. 321.—Rural Sociology. 3 credits. Prerequisite: SY. 201.
10:30 Daily PEA 308 GRIGSBY, S. E.

American rural life in the changing regions. Trends in rural social resources and problems in the United States, the Southeast, Florida.

SY. 322.—The Child in American Society. 3 credits.
Prerequisite: SY. 201.
9:20 Daily PEA 309 ATCHLEY, M. H.

Cultural factors affecting social adjustment of children with emphasis on normal youth. Specialized services to children in and outside their own homes. Current provisions for foster home care, guardianship adoptions, and institutional care of dependent children.

SY. 525.—Juvenile Delinquency. 3 credits. Prerequisite: 6 hours of sociology, including SY. 201.
10:30 Daily PEA 309 ATCHLEY, M. H.

Social determinants of delinquency. Methods of detention, probation and parole, court administration. Designed for teachers, social workers, and others concerned with the practical problems of delinquency.

SY. 530.—Individual Work. 3 credits. Prerequisite: 12 hours of sociology, including SY. 201.
To arrange EHRMANN, W. W.

Designed to permit advanced students to do work in subjects not available to them in currently offered courses.

SY. 545.—The American Family. 3 credits. Prerequisite: 6 hours of sociology, including SY. 201.
8:10 Daily PEA 301 EHRMANN, W. W.

The cultural configuration of the American family. Basic relationships will be examined in terms of theoretical, historical, and clinical considerations.

GRADUATE COURSES

SY. 646.—Seminar in Population. 3 credits. Prerequisite: SY. 550.
To arrange SMITH, T. L.

Readings, seminar reports and supervised research in population. Emphasis on studies of research techniques and on population trends in the United States.

SY. 699.—Research and Master's Thesis. 0 to 6 credits.*

SY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

For students who are working for a doctor's degree in the area of Inter-American Studies.

SOILS

SLS. 301.—Soils. 3 credits. Prerequisites: CY. 109-110 or CY. 121-122.
9:20 M T W Th MCC 133 ROTHWELL, D. F.
Laboratory: 12:50 to 3:00 M MCC 123

The nature and properties of soils. A treatment of the fundamentals of soil science including genesis, morphology, classification, chemistry, biology, physics, and moisture as related to plant growth.

SLS. 302.—Soil Fertility. 3 credits. Prerequisite: SLS. 301.
11:40 M T W Th MCC 133 ROTHWELL, D. F.
Laboratory: 3:10 to 5:20 Th MCC 123

General principles of soil fertility. The physical, chemical and biological factors affecting soil fertility and crop production. Studies on samples of soil from the home farm; commercial fertilizers, manures, green manures and organic matter maintenance, crop rotation and permanent soil fertility.

SLS. 406.—Soils and Fertilizers. 3 credits. Prerequisite: SLS. 302.
8:10 M T W Th MCC 133 SPINKS, D. O.
Laboratory: 3:10 to 5:20 T MCC 23

The use of commercial fertilizers with reference to their effects on soils, methods of application and crop response. Manufacture and formulation of commercial fertilizers. Laboratory will include a visit to a fertilizer plant where the student will observe commercial practices in mixing and handling.

GRADUATE COURSES

SLS. 600.—Advanced Soils. 3 credits. Prerequisites: SLS. 302 and permission of instructor.
To arrange MCC 220

Conferences, lectures, laboratory and problems in Soil Fertility and Management, Soil Chemistry and Microbiology, Soil Physics and Surveying and General Soils.

SLS. 650.—Conference in Soils. 1 to 4 credits.*
To arrange MCC 220

Reports and discussion of published research.

SLS. 670.—Research in Soils. 1 to 6 credits.*
To arrange MCC 220

SLS. 699.—Research and Master's Thesis. 0 to 6 credits.*

SLS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

SPANISH

SH. 134.—First Year Spanish. 3 credits.
8:10 M T W Th AND 18 HAYES, F. C.
Laboratory: 7:00 Daily AND 11

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*Credit assigned must be shown on course assignment card.

SH. 201.—Second-Year Spanish. 3 credits.
9:20 M T W Th AND 18 FERNANDEZ, P. V.
Laboratory: 8:10 Daily AND 11

SH. 202.—Second-Year Spanish. 3 credits.
11:40 M T W Th AND 4 HAYES, F. C.
Laboratory: 7:00 Daily AND 11

SH. 430.—Individual Work. 3 credits.
To arrange AND 3-B FERNANDEZ, P. V.

SH. 630.—Individual Work. 3 credits.
To arrange AND 3-B FERNANDEZ, P. V.

SH. 799.—Research and Doctor's Dissertation. 1 to 6 credits.*
To arrange AND 3-B HAYES, F. C.

SPEECH

SCH. 200.—Voice and Diction. 2 credits.
12:50 M T W Th ADM 239 KIRK, J. W.

Effective voice production, clear articulation, acceptable pronunciation, and pleasing intonation; rhythm and phrasing. Both group and individual improvement needs are met.

SCH. 201.—Effective Speaking. 3 credits.
(Register for one section only.)
Section 1 8:10 Daily ADM 239 MOHRMANN, G. P.
Section 2 9:20 Daily ADM 239 REYNOLDS, W. M.

Designed to aid the student through demonstration and practice to speak effectively to a group.

SCH. 314.—Types of Public Discussion. 3 credits. Prerequisite: SCH. 201.
9:20 Daily ADM 331 MOHRMANN, G. P.

Study and practice in the principles and methods of group discussion. Special attention given to problem-solving and conflict resolution.

SCH. 317.—Correction of Speech Defects. 3 credits. Prerequisite: SCH. 201.
10:30 Daily ADM 331 MC CLELLAN, M.

A beginning course in the recognition of common defects of articulation, dialect, nasality. Observation in the clinic.

SCH. 320.—Speech Training in Elementary Schools. 3 credits. Prerequisite: SCH. 201 or experience as an elementary teacher.
11:40 Daily ADM 331 MC CLELLAN, M.

Group procedures for the development of desirable speech habits in the child. Recognition of speech disorders.

GRADUATE COURSES

SCH. 630.—Individual Work. 3 credits.

A project or research course in such areas of Speech as are needed by graduate students. May be elected in subsequent sessions with change of content.

SCH. 688.—The Teaching of Speech in College. 3 credits.
8:10 Daily ADM 331 CONSTANS, H. P.

The more important philosophies and systems of speech instruction of the past 100 years. Instruction, organization, and content of the basic and advanced courses in the speech curriculum.

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*Credit assigned must be shown on course assignment card.

SCH. 699.—Research and Master's Thesis. 0 to 6 credits.

SCH. 799.—Research and Doctoral Dissertation. 1 to 6 credits.

VEGETABLE CROPS

VC. 499.—Special Problems in Vegetable Crops. 1 to 3 credits.*
To arrange JAMISON, F. S.

GRADUATE COURSES

VC. 670.—Non-thesis Research in Vegetable Crops. 1 to 6 credits.*
To arrange JAMISON, F. S.

VC. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange JAMISON, F. S.

VC. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange JAMISON, F. S.

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*Credit assigned must be shown on course assignment card.

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